

Karolina Marisa

# **CRITICAL PERSPECTIVES ON CO-CREATION FOR SUSTAINABLE DEVELOPMENT**

Faculty of Management and Business

Master's Degree Programme in Leadership for Change

Master's Thesis

May 2019

# ABSTRACT

Marisa, Karolina: Critical Perspectives on Co-Creation for Sustainable Development

Contact: karolina.marisa@gmail.com

Master's thesis: 70 pages, 2 appendix pages

Tampere University

Master's Degree Programme in Leadership for Change (Governance for Sustainable Change)

May 2019

---

Co-creation has been widely adopted resulting in inconsistent practical application and conceptual ambiguity. The co-creation approach has primarily been developed in the context of bilateral interaction between companies and consumers to create new value, either symbolical or material. In recent years the approach has spread to contexts where it involves multiple stakeholders in generating tangible solutions that may be considered as mutually beneficial. This study contributes to the further definition of co-creation in relation to sustainable development in an international setting. The context challenges co-creation through introducing a diverse set of expectations and objectives to the process. In relation to sustainable development, co-creation is defined as *collectively verifying problems and generating solutions through harnessing resources, capabilities and expertise for shared sustainable benefit*.

This study sheds light on the potential of the co-creation approach in fostering sustainable development and identifies mechanisms emergent in an international development setting. The study constructs a conceptualization of co-creation in relation to sustainable development, as a novel approach to doing development. The study utilizes the rigour of the realist evaluation method, underpinned in critical realism, to uncover the mechanisms of co-creation. The critical perspective of the study supports the identification of mechanisms that are seen to either support or hinder co-creation. Programme theory is developed and refined illustrating the logic of co-creation as an intervention. The study employs qualitative methods, such as document analysis and semi-structured interviews, to provide a robust exploration of co-creation in the empirical context of a Finnish-initiated smart community pilot project in Namibia. To contribute to the scholarly discussion on co-creation, the research questions are answered in a theory-driven way with empirical findings and existing literature in conversation.

The findings reveal *constraint*, *adaptability* and *reciprocity* as the main emergent mechanisms present in the intervention. Iterative *engagement* of stakeholders and *alignment* of their objectives and expectations are key emergent mechanisms found vital to fostering sustainability through the co-creation approach. The two mechanisms are interdependent and if not actualized, seen to support the emergence of mechanisms which hinder the generation of sustainable solutions or even foster co-destruction. The diversity of stakeholders involved in co-creation is seen to foster sustainability, as it allows for a more equal consideration of differing perspectives. The findings suggest that the co-creation approach supports sustainability objectives and has potential in involving marginalized groups in development activities. The key mechanisms identified, support achieving a consensus of sustainability and a context specific roadmap to achieving sustainable development. Co-creation presents as an open process inviting different influences, while it offers few guidelines for their navigation in practice. While some mechanisms of co-creation may be identified, the process is highly causal. This offers limited means to implement co-creation with the expectation that the result will follow the rationale of its initiation. The findings of the study are not directly applicable to any other intervention, however offer valuable insight on the nature and mechanisms of co-creation in a development locus.

Keywords: co-creation, co-destruction, development cooperation, sustainable development, sustainability

The originality of this thesis has been checked using the Turnitin Originality Check service.

# Contents

1	INTRODUCTION .....	1
1.1	Background.....	1
1.2	Research Approach.....	3
1.2.1	Research Objective and Questions .....	5
1.2.2	Research Process.....	8
2	CO-CREATION FOR SUSTAINABLE DEVELOPMENT .....	9
2.1	Conceptualizing Co-Creation .....	9
2.2	Co-Creation for Sustainable Development .....	13
2.2.1	Sustainable Development.....	13
2.2.2	Co-Creation as a Novel Approach to Doing Development.....	15
2.2.3	Co-Creating Sustainability .....	16
3	METHODOLOGY.....	19
3.1	Realist Evaluation as a Framework for the Study.....	19
3.2	Critical Realism as Research Philosophy .....	21
3.3	Qualitative Methods Used in the Study .....	22
3.3.1	Data Collection .....	24
3.3.2	Data Analysis.....	26
3.3.3	Smart Community Pilot Project.....	29
4	EMPIRICAL FINDINGS: MECHANISMS OF CO-CREATION FOR SUSTAINABLE DEVELOPMENT .....	33
4.1	Initial Programme Theory .....	33
4.2	Key Emergent Mechanisms for Co-Creating Sustainable Development .....	37
4.2.1	Alignment .....	38
4.2.2	Engagement .....	40
4.3	Answering Emergent Mechanisms.....	41
4.3.1	Constrainment .....	42
4.3.2	Adaptability .....	44
4.3.3	Reciprocity .....	45
4.4	Reformulated Programme Theory.....	48
5	DISCUSSION AND CONCLUSIONS .....	50
5.1	Ethics .....	56
5.2	Contributions.....	59
5.3	Limitations .....	59
5.4	Future Research .....	61

REFERENCES.....	63
APPENDICES .....	69

## Figures

FIGURE 1. Positioning of the main concepts in the study. ....	6
FIGURE 2. Types, phases or components of co-creation (see e.g. Saarijärvi et al. 2013; Sørensen & Torfing 2018; Voorberg et al. 2014). Illustrated by the author. ....	10
FIGURE 3. The three dimensions of sustainability. Illustrated by the author. ....	14
FIGURE 4. Differentiating cooperation, collaboration and co-creation. Illustrated by the author. ...	16
FIGURE 5. The relationship between context, mechanism and outcome (adapted from Pawson & Tilley 1997). ....	19
FIGURE 6. Critical realism views the world as stratified, entailing real, actual and empirical layers (see Bhaskar 1975; Sayer 2000). Illustrated by the author. ....	21
FIGURE 7. Author's illustration of the wider context of the intervention. ....	31
FIGURE 8. The intervention in relation to its context and expected outcomes. ....	34
FIGURE 9. The logic of the intervention. Illustrated by the author. ....	36
FIGURE 10. Engagement and alignment are recognized as necessary for answering context-specific emergent mechanisms in the intervention. ....	42
FIGURE 11. The premise, implication and manifestation of co-creation for sustainable development. Illustrated by the author (categories adapted from Prahalad & Ramaswamy 2004b, 5). ....	49

## Tables

TABLE 1. From co-creation of value to co-creation of sustainability: the diverse conceptual framework of co-creation constructed by the author. ....	11
TABLE 2. The author conceptualizing cooperation, collaboration and co-creation in relation to one another .....	15
TABLE 3. Summary of the conducted interviews and their representative roles in the intervention as described by the method (Pawson & Tilley 1997). ....	26
TABLE 4. The identified emergent mechanisms illustrated by the author. ....	47

# 1 INTRODUCTION

## 1.1 Background

International development has traditionally entailed technical assistance where government institutions of developed countries cooperate with less developed countries to provide them with resources (Stokke 2009, 29; Janus, Klingebiel & Paulo 2015). The economic crises of the late 1900's first fuelled a wave of criticism towards international development cooperation, which overshadowed many of the previous achievements of international development activities (Parfitt 2002, 1; Stokke 2009, 320). While the notion of development still holds an inherently positive connotation (Chambers 2004), the view on international development activities as pushing forward the ideals of developed countries towards developing countries contested the notion (Mawere 2017, 6). Development was seen to lack a clear consensus of what it is and what it should aim to achieve (Ibid.).

The development discussion started leaning towards market mechanisms' ability to solve the issues that states had failed to address (Stokke 2009, 315). Meanwhile, an emphasis on empowering the marginalized brought the jobless and homeless peoples to the forefront of development (Mohan & Stokke 2000; WCED, 1987, p. 44). It was soon found that neither markets nor states alone could solve the stagnate issue of global poverty (Nähi 2016, 426; Soman, Stein & Wong 2014, 13). Marginalized groups in society do not necessarily benefit from the spillover generated by market-based activities. In a neoliberal capitalist society, economic growth adds on to the wealth of the ones involved in wealth creation activities, while leaving out individuals that do not have the opportunity of employment. This logic relies on the wealth accumulated in a region being distributed for example through taxation, supporting education and other necessary services to engage the marginalized. In societies with thin institutional structures, unequal wealth creation is challenging to navigate. Whilst there has been significant growth in the global economy, it has instead resulted in ever-growing inequality (Soman et al. 2014, 13).

It is understood that development should not be carried out solely by external actors, instead it should reflect the social dynamics of its specific context (Ramaswamy & Ozcan 2014, 267-268). Sustainability requires the consideration of actors outside the state or market (Nelson 2011). The achievement of development inherently requires the active engagement of relevant groups, such as the marginalized, seeking positive change (Birdsall & Fukuyama 2011, 52; Nähi 2016, 426). Development activities should thus foster the capabilities of stakeholders to create the change they need while being accountable for the sustainability of their activities (Nähi 2016, 426). Even development activities have been seen to occasionally induce certain issues in the regions they are

implemented in (KEPA 2018). Sustainability challenges all actors to consider how their activities reflect on the society on all its levels, now and in the future (Kruger, Caiado, França & Quelhas 2018, 402; Sarmah, Islamb & Rahmanc 2015). Taking part in activities fostering sustainable development is not as such necessarily mandatory or voluntary, however seen to be highlighted across fields (Mellahi & Wood, 2003, 190; Steurer, Langer, Konrad & Martinuzzi 2005, 265). This brings further attention to balancing sustainability aims in multi-objective processes between a diverse set of stakeholders.

Sustainability remains a vague concept due to its multifaceted and contextual nature (White 2013, 217). There is an ongoing debate over what sustainability is, what it is aiming to sustain, where, how and for whom. Sustainability has been criticised for simply urging to sustain the current state of affairs, which is arguably unsustainable for the planet and the most part of the global population (Vallance, Perkins & Dixon 2011). The ambiguous nature of the concept presents some challenges in fostering sustainability in practice and in academia as there is no precise consensus for what constitutes a sustainable society (Baumgartner 2011, 785). The social equity dimension of sustainability as an exemplary, makes a judgement of an unequal world constituting an unsustainable world (Portney 2015, 39), while this cannot be considered a universal stand point.

A new approach is needed for fostering sustainable development in international settings. Most offerings, services or even products, are found to fail in delivering their objectives (Christensen 1997). Development activities have been scrutinized for their exogenous nature hindering the embeddedness of solutions, which is a necessity for sustainability. In addition, there are a variety of challenges characteristic of cross-cultural interaction and operating in new social contexts and between stakeholders from contexts with 'low cultural fit' (Canato, Ravasi & Phillips 2013). The traditional cooperation and collaboration approaches have had limited means for including the marginalized groups in society in the process of addressing their own needs. There is a need to find new approaches to support development activities as global *problem solving* (Janus et al. 2015). This has drawn actors involved in development activities to utilize co-creation, an approach developed primarily in the field of business for fostering bilateral interaction between companies and their customers. While the approach has not initially been developed for multi-stakeholder settings, it holds much potential for fostering equal participation and local ownership. In its core, co-creation aims to bridge the information gap between different stakeholders (von Hippel 2005; O'Hern & Rindfleisch 2010). This is expected to generate novel systems, services, products and solutions that address the needs of a variety of stakeholders in a sustainable way (Dembek, York & Singh 2018, 1609; Ind & Coates 2013).

It is apparent that sustainable activities and outcomes hinge on their embeddedness in specific local circumstances. This calls for widening the approach from its locus of bilateral institutional

relationships towards more multilateral multi-stakeholder engagement. Especially as neither development nor sustainability provide a roadmap with universal consensus to how they can be achieved. In an international setting, both require iterative and context-specific redefinition. The stagnate issue of poverty is a core concern in the international development discussion. The marginalized groups in society, the homeless and jobless, are at the center of attention when cultivating development in an international setting. Novel approaches are needed to address issues that the international society has not been able to answer to. The inclusion of a variety of stakeholders in supporting development activities is a characteristic considered across literature as good practice. The attention of scholars and practitioners has been drawn to the potential of the co-creation approach in improving sustainability of development activities. This study also endeavors to contribute to this discussion, through offering insight to the co-creation approach both for practitioners and scholars.

## 1.2 Research Approach

The locus of this study in scholarly discussion is multifaceted. The case employed as an empirical exemplary in this study highlights the blurring of sectoral boundaries and the importance of interdisciplinary expertise in addressing complex issues such as sustainable development. Co-creation is a result of the realization that a combination of different expertise is necessary, especially in relation to addressing complex phenomena such as urbanization and poverty. The theoretical and methodological foundation of this study is in social sciences and the evaluation research tradition. However, the study is highly multidisciplinary. The research tradition in *administrative sciences* guides the study in critically evaluating the practical implementation of co-creation and understanding it as a process. The *international relations* perspective in the study highlights the importance of understanding co-creation as an approach to answer to the fragmented and contextual nature of sustainability and to address the post-colonial tendencies in international development activities. The phenomenon under study – co-creation – has been developed in the field of *business*, and more specifically *marketing science*. This perspective is relevant in this study as well, as business activities have an established role in the prevalent approach to international development. This study utilizes relevant literature from these fields, to offer a comprehensive understanding of the potential of co-creation for sustainable development and how the approach could be adapted successfully into this context.

The approach of this study is founded in critical realism. The critical realist philosophy accommodates the ambiguity of co-creation as it calls for an understanding of the interplay between the structural reality and the relative and subjective nature of the empirical (Bhaskar 1975; Ramirez

1999, 55). The realist approach can be found as a valuable approach to studying co-creation as it is an open-ended process which is comprised of and shaped strongly by its environment and exists and is guided by all the layers of reality depicted in critical realist thinking. Thus, its existence, its roots and causalities, are highly contextual and somewhat abstract. Critical realism was chosen as a theoretical lense for studying the phenomenon of co-creation for its holistic take on generative causation and the methodoligal rigour offered by the realist evaluation in employing qualitative methods. The approach fits well into looking at a nascent approach which is in its development phases (Tuurnas 2016, 58).

The critical perspective of this study endeavors to offer insight on the mechanisms that both foster and hinder the co-creation of sustainable benefit in the context of the smart community pilot in Namibia. The co-creation approach has been subject to some criticism by scholars. With the growing interest for co-creation across fields, there is also concern about harnessing its true potential when implemented in practice. The approach may be viewed as idealistic, offering relatively little guidance to how it should be applied (Voorberg, Bekkers & Tummers 2014, 1347-1349). As its definitions vary significantly in different contexts, it is important to explore, whether co-creation is utilized to its fullest potential. The lack in conceptual coherence may manifest as its use to simply communicate values of inclusiveness rather than truly allow the agency of different stakeholders in the process (Voorberg et al. 2014). Critically examining the practical implementation of co-creation is however a limited perspective in the current co-creation literature (Voorberg et al. 2014, 1347).

Critical realism was found very suitable to the study of co-creation and fitting with the founding ideas of co-creation. The meta-theory urges individuals to accumulate knowledge even if it is narrow and lacking, as it also urges individuals to share their knowledge with one another aiming to complete the puzzle with one partial piece at a time. Co-creation takes part in influencing the real structures through a better understanding of the connections between actual and empirical. In co-creation people bring to light their individual perceptions and experiences, which are rooted in the events brought about by the real structures of the stratified world. In doing so they become more knowledgeable of differences and causalities. Factors affecting sustainability are a complex totality of different structures, events and perceptions which may either hinder or support sustainability.

As we all share the world we live in, we all share in what emerges from the real layer of the world. While the events related to our planets' conditions are becoming increasingly unsustainable, our perceptions are also different in relation to what is sustainable. We are not all affected the same, however we are as an international society acknowledging that we will all be affected unless there is action to shape what we have made real. We have accumulated enough knowledge about these real structures to consider the affect the global society has had on these structures with the actual events and empirical perceptions of the past and present. Co-creation can be a very useful approach



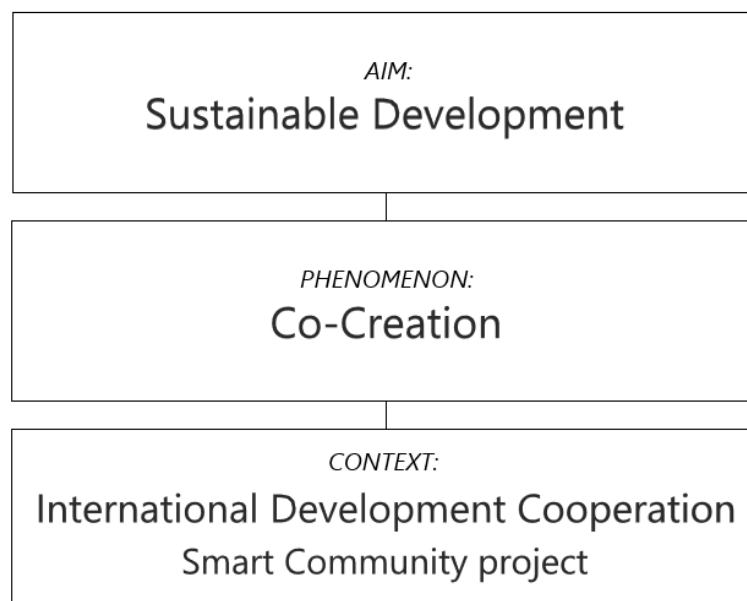
for accumulating democratic knowledge to understand how we could shift these effects to change the real structures towards more sustainability in the future. The approach has an important footing in this discussion and is thus extremely topical in relation to sustainable development. It is clear, that we all need to partake in and contribute to the creation of new knowledge on complex causalities of sustainability for the mutual benefit of all.

### 1.2.1 Research Objective and Questions

Much of the literature addressing sustainability co-creation acknowledges the inclusive nature of co-creation as an especially relevant approach to balancing the social, economic and environmental aspects of sustainability (see e.g. Arnold, 2017 180; Elkington 1998; Kruger et al. 2018, Steurer et al. 2005). Co-creation supports the flexible integration of a variety of stakeholders into the development process, allowing for the consideration of marginalized groups or even the environment as individual stakeholders (Yang, Han & Lee 2017, 482). The approach has been adopted by a multitude of actors from politicians and citizens co-creating novel policy solutions to small businesses and customers co-creating new services and products (Deya, Babub, Rahmanc, Doraa & Mishra 2018, 4; Roser, Defillippi & Samson 2013; Sørensen & Torfing 2018; 311). Co-creation has become a buzzword, which has spread into popular discussion (Saarijärvi 2011; see also Saarijärvi, Kannan & Kuusela 2013). Its application to a large variety of contexts has contributed to the growing ambiguity of the concept. Co-creation may now be understood as any type of open-ended and goal-oriented interaction between stakeholders with differing expertise, which is experienced as mutually beneficial to all participants (Ind & Coates 2013).

This study draws empirical exemplaries from an intervention employing co-creation in piloting the smart community concept in Namibia. The United Nations has stated that sustainable urbanization is now the key focus for achieving successful development, addressing the challenge posed by rapid growth of urban population especially on the African continent (UN 2018). More than half of the global population is now living in urban areas and the number of urban dwellers has close to doubled since the 1950's (UN 2018; World Bank 2019). Namibia has one of the fastest urbanizing populations (Ibid.). There is a great need for answering to the needs of the urban poor in relation to infrastructure and social services (UN 2018). In Namibia's case the need for housing is extremely dire. The UN SDG's promote thinking globally and acting locally. In line with this sentiment the smart community approach aims to enhance the overall quality of life locally, through connecting all dwellers and service providers to address each others' needs in the most sustainable way possible (Coe, Paquet & Roy 2000). The smart community pilot project is the context of the empiria, while the focus of the study is solely on the co-creation activities implemented in the case intervention.

This study aims to offer critical insight on the implementation of the co-creation approach in a new socio-cultural context. The approach was primarily developed to facilitate the bilateral interaction between companies and customers in the process of developing new offerings. Today, it is commonplace to adopt practices and procedures developed in one sector to the activities of other sectors. With sectoral boundaries becoming blurred, it is important to critically examine how these practices and procedures are adapted to service differing goals. A critical perspective is especially relevant when adapting approaches developed in the 'Global North' to address needs emerging in the 'Global South'. Today in international development cooperation a variety of stakeholders are often included in creating solutions. The international development cooperation context may be considered as one of the more complex settings for implementing co-creation, as it differs significantly from the setting it has been developed for. In the literature coining the approach, co-creation aims to equally generate economic and brand value to companies and customer satisfaction through the positive experience of participating in the process. In the development setting these aims become more ambiguous. Actors involved in development activities have recognized the potential of co-creation in facilitating the generation of equal long-term benefit for involved stakeholders, in respect of sustainability. A critical examination may shed light on how the approach should be developed with in order to better service sustainable development aims. The study critically explores the implementation of the co-creation approach in a smart community pilot which is to be considered as an international development project involving multiple stakeholders. The smart community pilot engages business goals and the needs of marginalized groups to generate sustainable solutions that support development both locally and internationally (see Figure 1.).



**FIGURE 1.** Positioning of the main concepts in the study.

To uncover the nature of the co-creation approach phenomenon and its potential in servicing sustainable development goals (SDG), it is important to understand how it is primarily understood to work and how it works when practically implemented in a development setting. A critical perspective is employed to better understand co-creation through the challenges imposed by its wide implementation in settings which differ from the one it has been developed in. It is apparent that this would be best served through exploring what in co-creation works in relation to sustainable development and what does not. In an international setting, development activities have been criticized for not offering approaches and solutions that are context-specific enough to truly support sustainability. What works in a given context may not work in another, and *vice versa*. To explore the context-specific nature of the co-creation phenomenon, a special emphasis on the mechanisms which emerge from the context is called for. This study endeavours to offer new knowledge on co-creation for its development as both a theoretical approach and a practical tool to support sustainability in development activities by offering further insight to these mechanisms. The aim is to provide insight to what co-creation looks like in practice: what is it in co-creation and its given context that generates certain outcomes? The study thus uses a theory-driven evaluation approach as a tool to analyse co-creation in a way that objectively evaluates its realization in a certain context with an emphasis on its *mechanisms*.

To guide the study towards offering new knowledge for the development of the co-creation approach to better address sustainability aims in a development setting, the study aims to answer its primary research question: ***What are the emergent mechanisms of co-creation in a sustainable development context?***

To answer this primary research question, the realist evaluation method is employed to uncover:

**1) *What works?***

*The perception of co-creation in the intervention: its objective, actors and resources involved.*

**2) *In which context?***

*Identifying dynamics, contradictions, tensions and paradoxes specific to development activities.*

**3) *With what mechanisms?***

*Identifying both intended and emergent mechanisms of co-creation in the context of the intervention.*

This study aims to inquire how co-creation of sustainability is achieved in the context of smart community building in a city-region in Namibia. More specifically this study seeks to identify mechanisms of co-creation and the interrelationships of stakeholder perspectives and experiences which shape these mechanisms. As more general results, the study will shed light on the potential of the co-creation approach in similar contexts. Only one study has been found during this research process which has explored co-creation in the context of a sustainable development project (Keeys

& Huemann 2017). As Keeys and Huemann (2017, 1211) have stated, project co-creation is a contextual phenomenon which needs to be explored in other contexts, different types of project orientations, structures, industries and sectors. While this study focuses on an intervention which is a part of a project, rather than aiming to evaluate the project as whole, it may provide further insight to how co-creation is seen to actualize in the context of development.

### 1.2.2 Research Process

The research aims for finding connections and gaps between the theoretical and empirical, which is supported by employing the realist evaluation method (Danemark, Ekström, Jakobsen & Karlsson 2001; Pawson & Tilley 1997). Realist evaluation is a theory-driven evaluation research method developed in the field of social sciences, which is underpinned in critical realism (Pawson & Tilley 1997; Pawson & Tilley 2001). In line with the realist evaluation method, a programme theory is developed, tested and reformulated in the analysis phase of the study. The programme theory describes the logic of an intervention through answering the sub-questions: what works, for whom and in what context. However, this study does not identify as evaluation research, rather it utilizes the rigour of the realist evaluation method to uncover the context-specific mechanisms to answer the primary research question. The study withdraws from the evaluation tradition, as it is satisfied with an identification of mechanisms in relation to an intervention which is solely a part of a project and is thus less concerned with further evaluating the outcomes of the intervention. This study is qualitative, employing document analysis and semi-structured interviews to offer further insight to the intervention at hand.

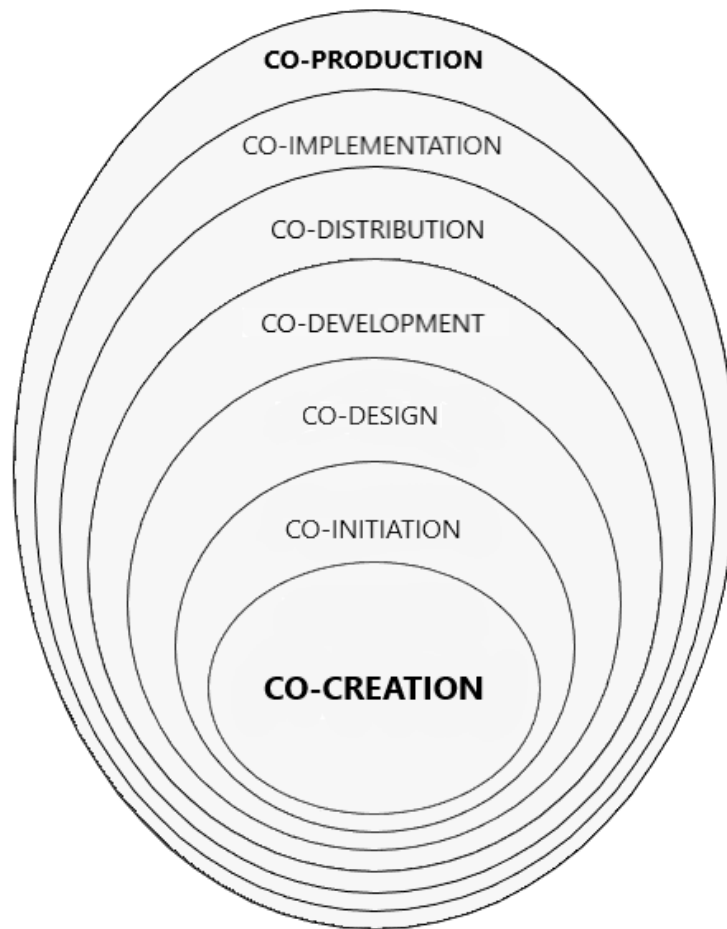
In *chapter 2*, the theoretical framework for the study is constructed aiming to offer a coherent understanding of co-creation aiming to foster sustainable development and aims to position this approach to others in development activities, such as cooperation and collaboration. In *chapter 3*, the critical realist meta-theoretical foundation and philosophical positioning of the study are described and the methodology of the study, realist evaluation, is further presented. The chapter presents document analysis and semi-structured themed interviews as the methods employed in this qualitative study and describes the analysis of the compiled data. The chapter ends with presenting the case intervention under study. *Chapter 4* illustrates an analysis of the data collected. The chapter begins with the initial programme theory developed to describe the logic of the intervention and continues on to test the theory and identify mechanisms relevant to the intervention. The chapter ends with a reformulated programme theory for the intervention based on the empirical findings. *Chapter 5* offers further depth to answering the research questions of this study and shares an understanding of the study as a whole, exploring issues of ethics relevant to this study as well as its contributions and limitations. The chapter ends with suggestions for future research.

## 2 CO-CREATION FOR SUSTAINABLE DEVELOPMENT

### 2.1 Conceptualizing Co-Creation

There is little consensus on the conceptual definition of co-creation. Furthermore, a common understanding of the objectives of co-creation and its practice has not been reached. The development of co-creation towards a theoretical approach is seen as unlikely to emerge (Roser et al. 2013). However, scholars share the understanding that it is important to explore the potential of co-creation and provide theoretical backbone to its widened practical implementation in different contexts (Arnold 2017). After Ramirez (1999) addressed the various roles stakeholders may hold simultaneously, scholarly attention was drawn to the individual agency of stakeholders in relation to one another. During the past two decades multiple strands of co-creation literature has stemmed (see e.g. Galvagno & Dalli 2014), with a wider interest sparked by the seminal works of Prahalad and Ramaswamy (2000; 2004a) and Vargo and Lusch (2004). The conceptual discussion of co-creation is rooted on the definitions it has been given in the *value co-creation* literature, which characterizes co-creation as a joint effort of generating new value, either material or symbolical (Galvagno & Dalli 2014, 644).

A multitude of concepts employing the prefix 'co' have emerged along with the co-creation discussion which call for further clarification in academia. The main distinction in scholarly discussion is between the concept of co-creation and the concept of co-production. Co-production emphasizes the citizens' dual role as both the 'service provider' and the 'client' founded on the example of citizens calling an emergency number (Ostrom, Parks, Whitaker & Percy 1978). Thus, co-production may be seen as highly intertwined with the concept of co-implementation of services. Some consider co-creation rather intertwined with the co-development and co-design of the service which may then be co-implemented and co-produced by multiple stakeholders (Voorberg et al. 2014, 1347; Saarijärvi et al. 2013). Co-initiation often relates to a stakeholder being proactive in initiating a process which would usually rely solely on another stakeholders' resources or will. Co-distribution entails the involvement of multiple stakeholders in disseminating the new knowledge, services or solutions to a wider audience for shared benefit. It is apparent that these concepts are highly intertwined and often overlapping in practice. In this study, co-creation is viewed as an umbrella concept which entails all the aforementioned concepts as different types, phases or components of co-creation (see Figure 2.).



**FIGURE 2.** Types, phases or components of co-creation (see e.g. Saarijärvi et al. 2013; Sørensen & Torfing 2018; Voorberg et al. 2014). Illustrated by the author.

In this study, the conceptualization of co-creation is understood as rooted in the value co-creation literature, while withdrawing from it towards the very recent conceptualizations provided by a few scholars on co-creation of sustainability (Arnold 2017; Galvagno & Dalli 2014; Keeys & Huemann 2017; Kruger et al. 2018). Developing a thorough understanding of co-creation requires a wider acknowledgement of its theoretical foundation. This entails identifying the relevant strands of co-creation literature providing insight to co-creation in a sustainability context. It has become clear that while the approaches provide quite an abstract view of what co-creation actually is, in Saarijärvi, Kannan and Kuusela's (2013, 15) words: "*-- the differences should be regarded as complementary rather than contradictory.*" With the acknowledgement of the variety of literature on co-creation this study also joins the collective endeavour of reaching a common understanding of co-creation. These varied approaches to co-creation are considered as highly intertwined. To provide insight to the multifaceted nature of the co-creation literature influencing this study, the main conceptualizations from the key sources is presented in Table 1.

**TABLE 1.** From co-creation of value to co-creation of sustainability: the diverse conceptual framework of co-creation constructed by the author.

Conceptualizing Co-Creation		
Locus	Key Insight	Source
Co-Creating Value Through Customer Experience	Personalized and meaningful experience of co-creation of value, as joint and context sensitive problem definition and problem solving	Prahalad & Ramaswamy (2004b; 2004c)
Value Co-Creation as Human Experience	Expanding mutual value through meaningful human experience resulting from developing products or services together with other stakeholders.	Ramaswamy (2011); Ramaswamy & Ozcan (2014)
Service Dominant Logic: Customer is Always a Co-Creator of Value	Mutually serving is the purpose of all exchange, thus value is determined through perspective and experience.	Vargo & Lusch (2004; 2006)
Customer Participation in New Product Development	Companies harness the creative potential in customers to uncovering their needs, through contribution and selection.	O'Hern & Rindfleisch (2010)
Co-Creating Sustainability	Maximal stakeholder integration and sensitivity to their individual challenges for fostering incremental sustainable change.	Arnold (2017)
Multi-Stakeholder Co-Creation as a Strategy for Sustainable Development	Strategy for providing benefit and addressing risk concerns of stakeholders reflecting sustainable development.	Keeyes & Huemann (2017)
Co-Creation as Means of Engaging Stakeholders in SD	Identifying problems and building solutions collectively provides higher engagement of stakeholders in addressing sustainable development.	Kruger, Caiado, França & Quelhas (2018)
Reciprocal Multi-Stakeholder Co-Creation	Reciprocal and meaningful process of continuous interaction between stakeholders as means of fostering participation and democratisation.	Ind & Coates (2013)

The common denominator for all these approaches is that the understanding of exchange has shifted from an actor basing its actions solely on their own expertise and perspective towards looking outwards (see Table 1). This entails organizations actively seeking relationships with their stakeholders and sharing information for mutual learning (Roser et al. 2013, 23). A mutual element

influencing this shift across sectors is that one has to be aware of which needs it is trying to address and whether it is succeeding in addressing them (von Hippel 2005; Thomke & von Hippel 2002). A driving factor for the popularity of the co-creation approach is the apparent dissatisfaction of customers and the ineffectiveness of sustainably solving challenges citizens are facing (Pahalad & Ramaswamy 2004, 6; Sachs 1992, 1). The 'wider integration of all relevant stakeholders' is emphasized in each approach. While the value co-creation literature has initially focused on involving the supply and demand side stakeholders, they are also noting that they do not solely propose a dyadic relationship, also moving towards the notion of maximizing both the number of participants as well as ongoing interaction in the co-creation process (Pahalad & Ramaswamy 2004c; Vargo & Lusch 2008).

All the approaches to co-creation highlight the notion of *mutual benefit* or *value* as inherent in co-creation (see Table 1.). A strong tie to *change* can be identified, as co-creation is viewed as an open process (see Table 1.). More than a way of thinking, some have even characterized co-creation as a *way of becoming* (Ramaswamy & Ozcan 2014, 290). This refers to the ability of co-creation to move beyond creating novel solutions to fostering collective transformation, from the individual to the societal level (Ibid.). Co-creation provides more opportunity and resources for a variety of stakeholders to change their circumstances (Ramaswamy & Ozcan 2014, 279). This adds to the ambiguity of co-creation, as it entails both tangible and intangible benefit created for all stakeholders (Galvagno & Dalli 2014, 644; Ind & Coates 2013). This is related to the emerged focus on *experience*. While change may be objectively identified, experience is highly subjective and contextual. Additionally, whether the current occurring change is experienced as beneficial by all stakeholders is what calls for continuous interaction and alignment of objectives (Keeys & Huemann 2017; Kruger et al. 2018). Thus, the notion of benefit relies on the experience of the individual participator in co-creation (Ramaswamy 2011, 195). Sensitivity to *contextuality* arises as an important consideration in co-creation as it shapes the experience and expectations of individual stakeholders (Arnold 2017; Prahalad & Ramaswamy 2004c).

When objectively exploring various perspectives to co-creation in literature, certain elements may be perceived as describing the nature of co-creation. In this chapter the seminal works as well as more recent publications on the topic are seen to share a few foundational premises. Including multiple relevant stakeholders for knowledge sharing and mutual learning, addressing individual needs and concerns while creating mutual benefit, and fostering change or transformative emergence may be drawn as descriptive of the nature of co-creation across fields. Some authors call for a more specified framework in guiding co-creation in practice and some offer insight to the development of co-creation as a theoretical approach. It's contextual nature and dependence on subjective experience provides a lense to understanding the innately ambiguous and complex conceptualization of co-creation. In the next section the conceptualization is addressed in the context



of sustainable development and furthermore the special characteristics of involving a large variety of stakeholders in co-creation, such as marginalized groups.

## 2.2 Co-Creation for Sustainable Development

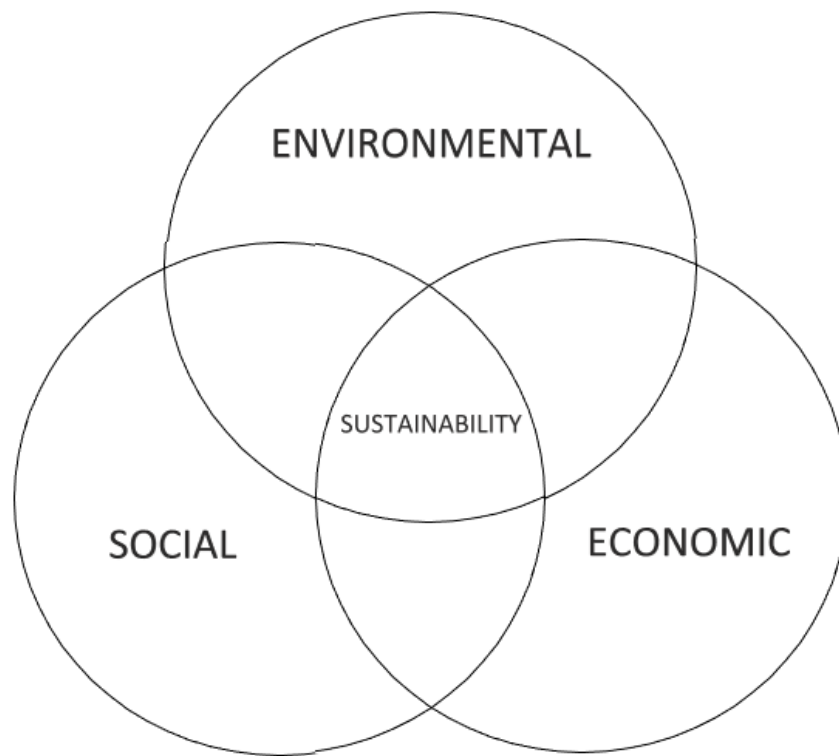
### 2.2.1 Sustainable Development

The concept of sustainability was introduced to academic discourse in the 1980's in the report "*Our Common Future*", also known as the Brundtland report, focusing on the sustainable development agenda (Portney 2015; WCED 1987). The early definition of sustainable development clearly emphasized conserving biodiversity and urging for sustainable use of natural resources (Voukkali et al. 2014, 2). By the 1990's the definition of sustainability had broadened to entailing economic viability, sociopolitical sustainability and environmental sustainability (Voukkali et al. 2014, 3). Sustainable development was brought centre stage at the Earth Summit in Rio de Janeiro in 1992 and the resolution 'Agenda 21', which called for countries' responsibility in promoting sustainability in their activities to which 170 countries were pledged (Voukkali et al. 2014).

The Brundtland report (WCED 1987, 39) introduced the most commonly used definition of sustainable development as "*— development that meets the needs of the present without compromising the ability of future generations to meet their own needs*". This definition addresses both the tangible and intangible needs for sustaining human life and the planet (Vallance et al. 2011, 343). The three-dimensional understanding of sustainability is widely acknowledged (see e.g. Arnold, 2017 180; Elkington 1998; Kruger et al. 2018; Steurer et al. 2005). It depicts the inherent balancing act between the economy, social equity and conserving the environment (Harris, Wise, Gallagher & Goodwin 2001). The idea of these three pillars of sustainability is that equal attention should be paid to sustain each, as one could and should not exist without another (Portney 2015, 6). (See Figure 3).

Sustainable change requires a holistic approach to answering the needs and concerns of communities on a local level, relying on its adoption as endogenous. Sustainable development should only be supported and facilitated by exogenous actors (UN 2018). This means that a consideration for sustainability should be embedded in all activities. The starting point for developing unique societal structures becomes challenged when on all levels of society, being the state, market and the variety of actors operating in between, are offering a Western 'truth' of modern democracy (Bhabha 1984). The SDG's call for a multi-stakeholder engagement in bottom-up activities as sustainable change requires an understanding of the local needs and concerns, as well as supporting local ownership (UN 2018; Mitchell & McGahan 169). Partnerships between

governments, the private sector and civil society are seen necessary to foster sustainable development successfully (UN ECOSOC 2016; UN 2018). This entails strengthening the connections between the local and global levels of society, to engage all relevant stakeholders in promoting sustainability.



**FIGURE 3.** *The three dimensions of sustainability. Illustrated by the author.*

Sustainable development acknowledges that there is a need to *change* current practices for achieving sustainability. The notion intrinsically calls for the proactivity of a variety of stakeholders in working together towards sustainable change. As many development policies are focusing on the engagement of private sector actors, there is a need for new approaches to working together which accommodate different stakeholders (Mawdsley, Savage & Kim 2014). The aim is to generate benefit by the increasingly intertwined and interdependent private, public and social sectors (Ramaswamy & Ozcan 2014, 258). This first and foremost requires interdisciplinary and cross-sectoral understanding from actors, to acknowledge one another's roles in relation to sustainability. Actors with differing characteristics and aims have a footing in sustainability discussion and are encouraged to further engage in development activities.

## 2.2.2 Co-Creation as a Novel Approach to Doing Development

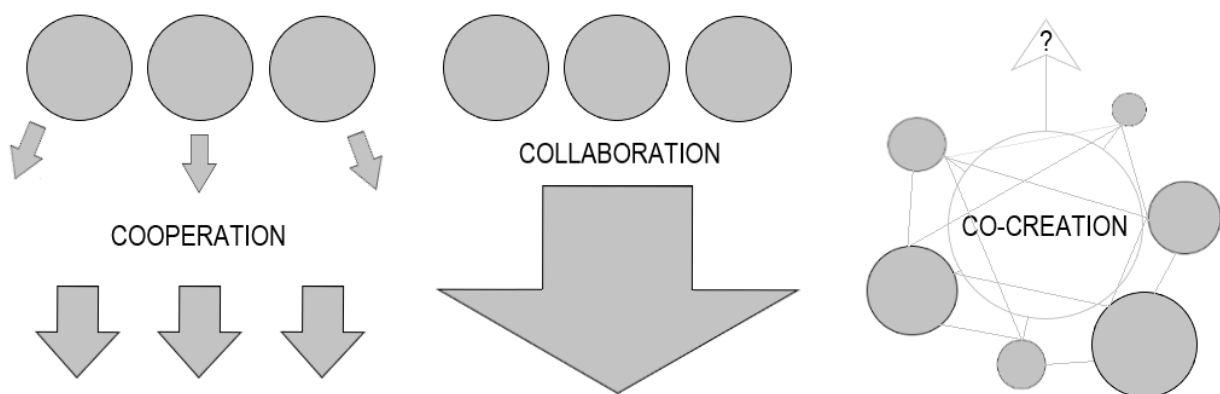
The idea that multiple stakeholders should be included in development activities is not novel, especially in an international setting. Usually development ties into certain policies, either conveyed by national or international actors. Often there are a multitude of actors involved in framing these policies, including INGO's, governments, businesses and civil society organizations, which also engage in the implementation of these policies. The established notion of development cooperation generally depicts the cooperation between two governments in implementing policies promoted by INGO's such as the UN. However, with the somewhat novel emphasis by the SDG's on the grass-roots level, means are needed to engage a wider variety of stakeholders that may not have direct representation in coining or implementing development policies. Positioning co-creation in relation to the cooperation and collaboration approaches sheds light on how it relates to the shift in development policy as a novel approach to doing development. This study positions the concepts in relation to one another based on their approach to the more marginalized stakeholders affected by development activities (see Table 2. below).

**TABLE 2.** The author conceptualizing cooperation, collaboration and co-creation in relation to one another (see e.g. von Hippel 2005; Ind & Coates 2013; Keeys & Huemann 2017; Martin, Nolte & Vitola 2016; Payne, Storbacka & Frow 2008; Steurer et al. 2005)

Approach		Character	Motivation
Cooperation	'For'	Operating alongside another	Common mission
		Low intensity of interaction	Pooling resources
		Often short term	Minimizing overlapping activities
		Low risk and cost	Control through coordination
		Strong control	Linear processes
		Formal	Improving efficiency
Collaboration	'With'	A relationship between organizations	Parallel aims
		High interdependency, risk and cost	Pooling resources
		Requires symmetry of power	Improving effectiveness
		Long-term relationship	Flexible regarding scale
		Little control	Diverse organizations
		Informal to formal	Tangible or intangible form
Co-Creation	'By'	Iterative interaction between a diverse set of stakeholders	Finding a common aim
		Asymmetry of knowledge	Pooling resources
		Open-ended process	Harnessing different capabilities
		Limited interdependency, while varied in intensity, risk and cost	Sharing knowledge
		Little to no control	Creating something new
		Informal	Beneficial for each participant

The three approaches *cooperation*, *collaboration* and *co-creation* are horizontal. Neither has set characteristics for their multilateral relationships or inherent structures of influence, while they do offer different frameworks for working together. Development cooperation has endured much criticism over doing development *for* the relevant stakeholders, which may be challenging for the stakeholders to sustain after the relationship comes to an end. Collaboration fosters shared ownership of the activities through doing development *with* the relevant stakeholders. Co-creation on the other hand enforces the agency of each relevant stakeholder further, allowing for doing development *by* a variety of stakeholders.

Cooperation endeavours to align processes between actors with similar missions to minimize overlapping activities and achieve the goals more efficiently. Collaboration entails forming relationships with actors that have parallel aims to improve effectiveness. The aim of co-creation however, is motivated by diversity rather than similarity. Co-creation is based on sharing expertise and knowledge to foster the creation of something new, thus shaping a common goal through interaction. Malunga (2014, 635) has noted: “*relationship is the foundation for the being and doing of development*”. Co-creation requires a network of diverse stakeholders which all see the benefit in their engagement in the co-creation process. (See Figure 4.).



**FIGURE 4.** Differentiating cooperation, collaboration and co-creation. Illustrated by the author.

### 2.2.3 Co-Creating Sustainability

To succeed, development activities need to be founded on an understanding of what needs it is aiming to address and how (Hauser, Tellis & Griffin 2006, 3). Outside of the sustainability discussion, the asymmetry of information between stakeholders relates to the exchange between supply and demand side (von Hippel 2005). There is an assumption that the demand side may offer valuable

insight to what they want from an offering, while the supply side has extensive knowledge on how this could be provided (O'Hern & Rindfleisch 2010). The consideration of each stakeholder as an expert on their own circumstance elevates co-creation to not only combine information in novel ways for the development of higher quality offerings. Rather co-creation here acts as means to achieve a deeper understanding of the various perspectives different stakeholders have to a certain issue. Especially in an international context co-creation offers a framework in which the boundaries between supply and demand side are blurred further, considering the stakeholders' knowledge as equal when entering co-creation. International development activities have faced challenges in truly understanding local capacities, resources, and circumstances, which is necessary to create sustainable solutions which enjoy local ownership (Ramaswamy & Ozcan 2014, 268). Co-creation includes local peoples in determining what enables them, articulating their needs and concerns to foster sustainable development (Malunga 2014, 631-632; UNCTAD 2017).

Co-creation allows marginalized groups to have agency in changing their own circumstances and building their own futures (Soman et al. 2014, 11). It goes beyond the problematic notion of 'giving voice', which has intended to shift attention to the needs and wants of the informal and the marginalized that are too often left out of the equation when addressing development (Alcoff 1991; Soman et al. 2014). The notion of 'giving' a stakeholder the opportunity to voice their concerns in a dialogue where they legitimately should hold agency may be seen as rather enforcing a sense of inequality than reducing it (Alcoff 1991). In co-creation, action is not taken for or with an object, it is taken by a subject. Here the subject should hold equal agency in relation to any other stakeholder participating in solving mutual problems. Thus, the approach highlights that each stakeholder should be afforded the opportunity to speak for themselves and is seen to hold a democratising element (Ind & Coates 2013).

Co-creation fosters a holistic approach for working together enabling all dimensions of sustainability to be considered in an equal manner (Kruger et al. 2018, 401). Co-creation fosters the creation of novel social practices through changing the relationships, positions and rules between a diverse set of stakeholders (Ramaswamy & Ozcan 2017, 273; Soman et al. 2014, 171; UNCTAD 2017, 4; Voorberg et al. 2014, 1334). In a sustainability context, the notion of equal participation and mutual benefit are emphasized (Kruger et al. 2018, 402; Yang et al. 2017, 483). Introducing a framework such as sustainability as an aim of co-creation might be questioned as a preset for what should emerge from a certain co-creation process. Participation in co-creation and thus the outcomes of co-creation should be ones which are beneficial for each stakeholder involved in the process (Keeys & Huemann 2017, 1210). As most literature describes co-creation as an open-ended process, sustainability is in itself a fluid concept. The founding premise of co-creation that characterizes each stakeholder as an expert of their own circumstances entails that in relation to

sustainability. The stakeholder is thus also able to construct and share their own perception of what is to be considered sustainable in a given circumstance.

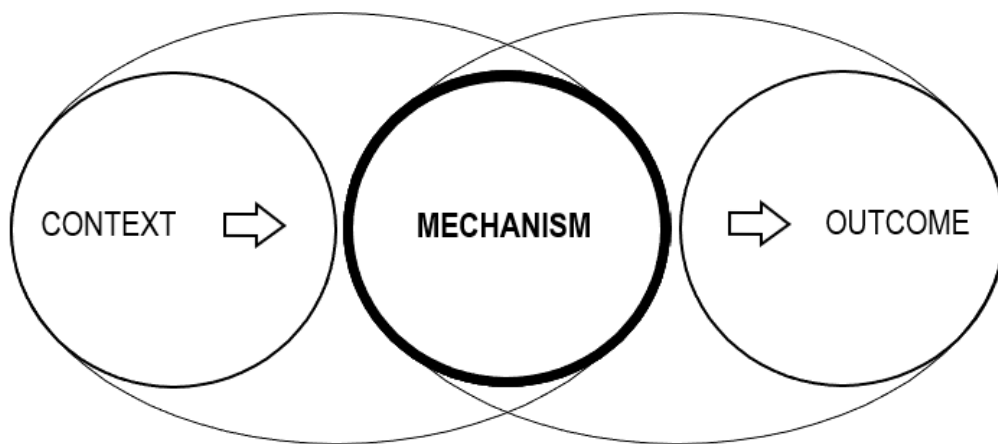
While limited, the existing literature on co-creation for sustainability offers insight to its special characteristics. Co-creation is the expansion of knowledge which is expected to generate mutual benefit through a successful co-creation process (Arnold 2017). This requires a continuous resignification of the co-creation process in relation to its wider objectives (Kruger et al. 2018, 409). Each stakeholder should be part of the collective formation and definition of the objectives and determining how the process is proceeding (Keeys & Huemann 2017, 1196). What becomes an important factor for fostering a successful co-creation process for sustainability is both a sensitivity to each stakeholders' circumstance and an effort to align their expectations (Ibid).

The literature addressing co-creation for sustainable development provides focal points for understanding how co-creation is fostered. It highlights a need for multitude of mechanisms such as stakeholders' access to information, mutual learning, experience of being an equal participant, transparency between stakeholders, trust building, and understanding possible risks and potential benefits included in the co-creation for sustainable development (Keeys & Huemann 2017, 1196–1997; Kruger et al. 2018, 409; Yang et al 2017, 483). Co-creation in the context of a sustainable development can be defined as collectively verifying problems and creating solutions through harnessing resources, capabilities and expertise for shared sustainable benefit (Arnold 2017, 180; Ind & Coates 2013; Kruger et al. 2018, 402; Ramaswamy & Ozcan 2014, 267; Steurer et al. 2005). The discussion also acknowledges interaction as a core mechanism of co-creation, however placing special emphasis on the engagement of a variety of stakeholders and the alignment of their needs, expectations, benefit and concern within the frame of the three dimensions of sustainability.

### 3 METHODOLOGY

#### 3.1 Realist Evaluation as a Framework for the Study

Co-creation is seen as highly dependent on *how* stakeholders interact when collectively verifying problems and creating mutually beneficial solutions (Keeys & Huemann 2017, 1201; Kruger et al. 2018, 402; Ramaswamy 2011, 251). This draws the attention of the research to the *mechanisms* by which certain outcomes are created in a given context. To identify mechanisms, one must explore the context from which certain mechanisms arise in relation to their outcomes (see Figure 5.). Drawing from empirical exemplaries and linking the empirical findings to the existing literature in a theory-driven way, the study employs the evaluation research tradition in social sciences. Realist evaluation as a framework for the study was further reinforced by the questions raised by Saarijärvi et al. (2013, 11-12): “*what is co-created for whom, by what resources, and through what kind of mechanism*”.



**FIGURE 5.** The relationship between context, mechanism and outcome (adapted from Pawson & Tilley 1997).

While the study does not aim for a holistic evaluation of a programme, it uses similar methodology as evaluation research to answer its guiding research questions. Generally, evaluation aims to achieve an objective understanding of what is happening and why. Evaluating a policy, program or other intervention often draws focus to their outcomes to evaluate whether it is productive, efficient and effective. From an etymological standpoint, the word 'evaluation' is rooted in the word 'value' and can thus often endeavours to assess whether a certain intervention can be deemed valuable (Shaw, Greene & Mark 2006). As the outcomes of co-creation are considered highly complex and

multifaceted, this study does not strive to identify all outcomes of the intervention nor estimate their value. The aim is rather to provide further understanding about the nature of co-creation and how it can be seen to realize in relation to sustainable development. This study withdraws from the evaluation research tradition with its focus on shedding light on the context specificities influencing the outcomes of the intervention: the mechanisms.

Realist evaluation acknowledges complex causalities and takes them into consideration, while aiming for a holistic understanding of a subject (Pawson 2006). The founding notion is that there are always unintended mechanism that arise in any activity due to its context (Kazi 2003). The method offers a tool for identifying causalities of mechanisms and outcomes to explain how and why a social intervention works in a given social context (Kork 2016, 97). In line with sustainability, realist evaluation sees context as entailing socio-cultural, economic and environmental aspects. These aspects are embedded in all human activity as they affect behavior which creates norms and practices (Pawson & Tilley 1997, 216, 70–71).

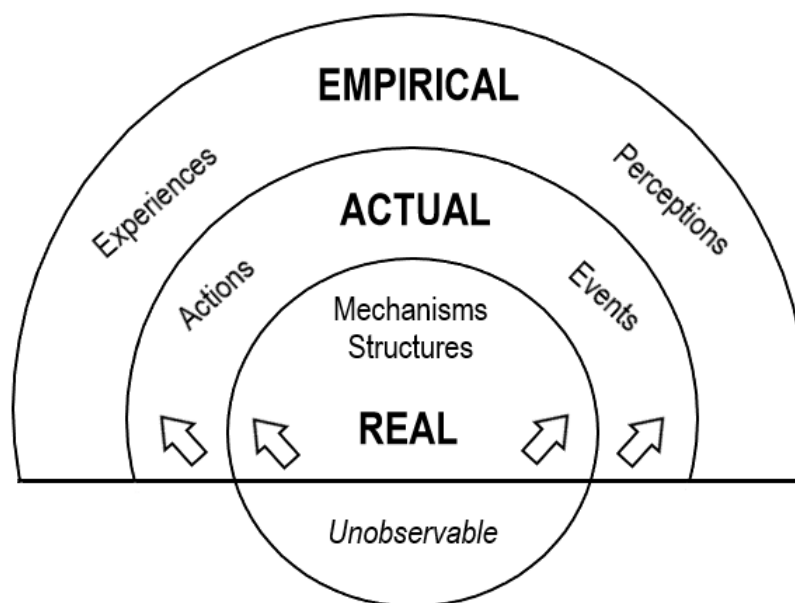
An intervention is seen to always be founded on a certain logic, which in itself constitutes a theory (Pawson 2006). This program theory entails hypothesis on the intervention answering what is seen to work in the intervention, for whom and in which circumstances. During the evaluation process empirical evidence as well as abstract theories are used to find if they support the hypothesis or not. The study begins with a formulation of this theory and finally after evaluating the mechanisms and outcomes of the intervention, the programme theory is reformulated based on the findings (Kork 2016, 98). Presenting the programme theory provides a clear understanding of the knowledge base guiding the researcher through the analysis towards answering the more specific research question. The initial programme theory provides transparency to the study, offering a description of the understanding of the intervention the researcher is reflecting through out the analysis. The program theory of co-creation provides an understanding of its foundation and justification, describing the logic behind its activities and how it is seen to actualize. (Pawson 2006; Pawson & Tilley 1997).

Realist evaluation traditionally encourages researchers to study macro level social realities in relation to small scale interventions. These kinds of evaluations give means for testing theories, as is in this specific study. (Pawson & Tilley 1997; Pawson & Tilley 2001). The mechanisms are identified through an exploration of the resources introduced by the intervention and the reasoning of stakeholders that emerge in relation to those resources (Pawson & Tilley 1997). This is especially fitting for understanding the realisation of co-creation as an ambiguous approach to sustainable development involving a variety of stakeholders in an international setting. This is due to the rigour the framework offers for the systematic analysis of these elements.



### 3.2 Critical Realism as Research Philosophy

This study is underpinned in critical realism, viewing it as both a meta-theory and philosophy of science. Critical realism offers a lense for exploring intertwined phenomena such as co-creation. Through critical realisms understanding of the stratification of the world one can further analyse the relationship between context and the emergence of sometimes unintended mechanisms (see Figure 6. below). The *real* portrays the mechanisms and structures that are not always observeable and which may overlap (Bhaskar 1975; Sayer 2000, 11). The *actual* portrays events and phenomena that are generated by these mechanisms and structures (Ibid.). The *empirical* portrays the observation and experience of these events and phenomena (Ibid.). Thus, in realist thinking the cause-effect is far too simplistic to offer an explanation for any phenomena (Pawson & Tilley 1997, 67). Critical realism views knowledge to be generated when focusing on the deep structures and mechanisms of the real, such as norms and values. This is a valuable lense for the exploration of co-creation as it emphasizes social context. Danemark et al. (2001, 109) summarize well that the explanatory nature of critical realism offers a lense where the gap between the concrete and practical can be bridged with the abstract and the theoretical.



**FIGURE 6.** Critical realism views the world as stratified, entailing real, actual and empirical layers (see Bhaskar 1975; Sayer 2000). Illustrated by the author.

Critical realism withdraws from empirical realism in its epistemological premise. In critical realism ontology is seen to determine epistemology. This supports exploring co-creation especially well considering its acknowledgement of the contextual sensitivity of all knowledge. While the premise is

that the way things are affects what we know, it also understands that subjective knowledge may affect the way things are (Sayer 2000). Danermark et al. (2001, 5) have noted that the very essence of critical realism is that epistemology is seen as subaltern to ontology and ontology moves from a focus on events to focusing on mechanisms.

Critical realism highlights the limitations of individuals holding a comprehensive understanding of reality. It is positioned as post-positivist in the social sciences, which aims for objectivity in research while acknowledging the biases of an individual researcher (Bhaskar 1975). When acknowledging the bias of an individual to their subjective way of knowing, critical realism also provides a foundation for understanding one another. While all the real layers of the world might not ever be perceivable for an individual, it allows us to consider our differences in perspective as mainly subject to our circumstance. To some extent the real is also contextual, however the real is in many ways something that we share with the whole population existing on this planet. In line with post-positivist ideas, critical realist research does not aim to provide comprehensive empirical accounts that are to be generalized to other circumstances, understanding the limitations of research, while noting that truth is possible to achieve through cumulating a vast amount of data. While it is understood that mechanisms can not be identified or understood to their whole extent, their exploration is still seen as very important (Sayer 2000).

### 3.3 Qualitative Methods Used in the Study

The study is conducted using qualitative methods. This study employs an indepth review of relevant literature, a thematic document analysis and coding directly from narratives collected through semi-structured interviews. All primary data is gathered in relation to the intervention under study. The study employs triangulation of data only in the redefinition of the proposed programme theory, as it relies on documentation for the development of the programme theory, then employing interview data in a deductive manner to test the programme theory and then presents the reformulated programme theory with the documentation and interview data in conversation with one another. The methods have been chosen in consideration of what type of information is seen necessary for the exploration of how co-creation as intervention is expected to work and how it is seen to actualize in practice. The aim when choosing methods for collecting data is to assure accuracy in depicting the experiences and perspective of stakeholders which are seen relevant for the development of the programme theory (Pawson & Tilley 1997, 164). Furthermore, mechanisms may only be identified through exploring subjective experiences (Maher & Aquanno 2018, 35).

The research process has been guided by the phases of critical realist research as described by Danermark et al. (2001, 109–111). This process was deemed fitting to provide rigour to the

development and reformulation of a programme theory on an ambiguous intervention. While phases may be overlapping and intertwined in practice, they allow for a clear description of the interplay between abstract theories and empirical evidence through out the research process (Danemark et al. 2001). The research process follows these five phases (see Danmark et al. 2001):

### **1. Description**

The research starts with the concrete. Introducing oneself to the phenomenon in all of its complexity which acts as the object of the study. Through the *Introduction* chapter, the study positions itself in relation to the scholarly discussion it is participating in and defines the aims of the study. Relevant stakeholders of the phenomenon were identified, which allows for framing suitable methodology for the development of the programme theory.

### **2. Analysis Resolution**

In this phase the focus of the study becomes more clear as the researcher aims to separate the various parts and dimensions of the phenomenon choosing and explaining the focus of the study on only one or a few of them. This phase included the development of an initial program theory for the empirical context of this study, co-creation in the smart community pilot as an intervention. The initial program theory is approached based on the researchers initial understanding of the phenomena achieved by conducting the literature review presented in the *Co-Creation for Sustainable Development* chapter and is developed through an analysis of the preliminary documentation provided by the smart community pilot project on the intervention at hand.

### **3. Abduction and Retroduction**

This phase includes conducting semi-structured interviews on the intervention and analyzing the collected data using coding to form CMO configurations. The causalities between circumstances and outcomes are explored to identify emergent mechanisms. This allows for a theoretical redescription of the co-creation in relation to the context of the study.

### **4. Comparison of different abstractions**

In the *Empirical Findings* chapter mechanisms are presented and their explanatory power identified through the previous phase. The analysis results are presented, resulting in a redefined programme theory of the intervention.

### **5. Concretization and contextualization**

In the *Discussion and Conclusions* chapter, the mechanisms' interaction with one another is further explored in relation to the context specific structures. Here the focus is on providing results useful to practitioners and academia in implementing co-creation in similar contexts in the future.

### 3.3.1 Data Collection

As the study is focused on studying co-creation in the context of the smart community pilot, it holds characteristics of a case study. To achieve a preliminary understanding of the intervention under study, the research began with holding preliminary conversations with three representatives of the smart community pilot project. These conversations supported an initial understanding of the intervention in order to design the research. Documentation on the project was collected through these representatives at the initial stages of the research process. Documents were seen useful especially when developing the initial programme theory describing the intervention. Themed semi-structured interviews of stakeholders were considered to provide a more robust understanding of the intervention. Insights gathered through interviews were seen especially useful in the testing and reformulation of the initial programme theory.

The data collection started with preliminary discussions with representatives of the stakeholder groups initiating the intervention. These individuals acted as the point of contact within the project disseminating documentation about the project which was integral for gaining a holistic understanding of the project, the founding views on the co-creation approach and their general experiences in regards to the project. This initial preparation was imperative for the framing of this study, the development of the initial rough programme theory of the intervention. It also provided the relevant knowledge basis for conducting the data collection through interviews. The interviews were approached as deductive, expecting a certain level of knowledgeability of the issues discussed from the researcher already when conducting the interviews. When the research was started, the project was coming to an end. Thus, the contact persons became important in understanding which stakeholders had been involved in the project with an understanding of what types of roles were held by different individuals within the project. These contact persons were also an integral part of reaching the interviewees.

The interviews offer insight into the mechanisms and outcomes emergent in the practical implementation of co-creation in set context, thus allowing for the development of a more robust and refined programme theory. The interviews were to be conducted in both a deductive and inductive manner as the initial programme theory was then tested through these interviews, however also being open to learning about aspects which were not considered in the development of the theory. The interviews aim to add to or rebuttle statements presented in the initial programme theory. As the researcher is considered in a deductive interview to be informed on the subject, the interview can follow a more conversationalist approach. The design of the interviews follows the realist evaluation method adopting a realist interview framework. The distinct feature of a realist interview approach is that data construction in theory-driven evaluation is also theory-driven. The information acquired aims to be representative of the informants' thoughts, feelings and empirical experience.

Furthermore, the informants' main role is to refine the programme theory. To acquire different perspectives, interviewees were selected based on a representation of a *subject of the program*, a *practitioner* and a *policy maker*. Realist evaluation views stakeholders to hold an integral role in informing the programme theory, as they have insight on how the programme has realized in practice. (Pawson 1996.)

The semi-structured themed interview approach was implemented guided by the realist evaluation method. Furthermore, the interviews were leaning more to the unstructured and conversational form of interview, understanding that each interviewee has held a different role in the smart community project and thus the questions and depth of discussion were different with each interviewee considering their specific expertise in relation to each theme. The interviews were conversationalist in line with the realist teacher-learner approach, as the cycle of the interview structure was repeated along with each theme to provide a firm framework on analysing data in relation to the programme theory development (see Pawson & Tilley 1997). This is in line with Pawson's emphasis on 'hypothesis-seeking' rather than the structure of the interview itself (Pawson 1996, 306). The interviews started with openly communicating the goals of the interview and attention was paid also to the narratives going outside of the logic presented in the programme theory and their connections (Pawson & Tilley 1997; Pawson 1996.)

The conducted interviews were narrowed down to three, based on the realist evaluation method proposing the inclusion of the perspectives of policy maker, practitioner and subject of the program (see Table 3.). As the project involved stakeholders in both Finland and Namibia, it became apparent that there should be an equality of perspectives also from this regard. It was decided that the role of policy maker would in the case of this specific intervention be held by a stakeholder, that had been involved in the planning of the project from the start. As the study aimed at exploring the context specific mechanisms emergent in the intervention, it was considered highly relevant to include the perspectives of Namibian counterparts in the data. The practitioner in this intervention was considered as someone that had been actively involved in the facilitation of co-creation efforts in the local context, having strong connections with most stakeholders involved in the project. The subject to the program was considered as an individual from the local community, which the smart community project had engaged in co-creation. The different roles of the interviewees supported the exploration of the interview themes in a way which allowed the formation of a comprehensive understanding of the intervention. A larger number of interviews may have been conducted, however saturation was reached in regard to the inquiry aiming to provide empirical exemplaries of the mechanisms of co-creation rather than a holistic evaluation of the intervention. The number of interviewees discussed further in the chapter on the limitations of this study.

**TABLE 3.** Summary of the conducted interviews and their representative roles in the intervention as described by the method (Pawson & Tilley 1997).

Name	Position	Interview Date	Lenght
Interviewee 1	'Subject of Intervention'	January 10th 2019	00:56:26
Interviewee 2	'Practitioner'	November 11th 2018	01:03:14
Interviewee 3	'Policy Maker'	March 18th 2019	01:14:26

The interviews followed rough themes including the goals, the implementation and the outcomes of the intervention. These themes were followed to allow for the interviewees to raise experiences and thoughts without guiding them significantly with the structure of the interviews. While the interviews were deductive, it was integral to allow space for the interviewees to raise topics that were not necessarily present in the development of the initial programme theory. The interview questions were formulated based on the questions realist evaluation is trying to answer on *mechanisms, as in what works or does not work, and for whom*. Additionally, the questions were pondered based on co-creation literature (Ind & Coates 2013; Saarijärvi et al. 2013). Ind and Coates (2012, 153) raised questions on the type of co-creator, their purpose for co-creating as well as the locus of co-creation. The questions in each interview differed according to the expertise and perspective of the interviewee.

### 3.3.2 Data Analysis

Deductive inference guided the preliminary approach to this study, as it is underpinned in the critical realist understanding of theory as the foundation of knowledge and scientific inquiry. It is also supported by realist evaluation as a methodological approach based on its premise on research starting from the development of a theoretically constructed hypothesis, which is then tested throughout the empirical analysis. While the starting point for the study was deductive inference, as there was a hypothesis of how co-creation is expected to realize in the context of sustainable development, neither deductive nor inductive reasoning can thoroughly guide the type of explanation this study is aiming for (Danemark et al. 2001, 89). Thus, while a deductive logic of reasoning is applied, the development and testing of the programme theory on co-creation as an intervention called for additional forms of reasoning applied in different phases of the research process. These include the abductive and retroductive forms of reasoning, which as suggested by Danmark et al. (2001) are integral to conducting realist research.

The development of the program theory started with an analysis of documents, which were produced by the consortium initiating the project in the planning phase of the intervention. Especially when conducting critical research, it is important to take into consideration the purpose of the afforded documentation and its initial target audience. The timeline of the documentation in relation to the project was also an important consideration to determine their comprehensiveness. As such many of the documents described the intervention at its planning phase rather than reporting on how it had been seen to actualize. An understanding of the timeline of when the documents had been produced and to which audience they were targeted for allowed also for identifying possible changes in the contents and as such the redefinition of the project throughout its existence until the time they were disseminated for the purpose of this research. (Bowen 2009, 30-34.) First the documents were skimmed for a preliminary overview of the type of information they provided and then read more thoroughly to identify contents relevant for the central questions set for the programme theory, describing the logic of the intervention. The documentation was seen as balanced in the amount of detail in which it discussed the relevant topics to this study and covered the intervention rather broadly than selectively (Bowen 2009, 33). Data was analysed using thematic analysis through its categorization based on whether it depicted what co-creation was seen to entail, identified the relevant stakeholders or described the circumstances of the intervention. The programme theory in itself is a result of the document analysis, as it is the interpretation of data which establishes the meanings and contributions of the data to the purpose of the study. (Bowen 2009, 32-33.)

Document analysis is especially applicable to this type of qualitative case study exploring a specific intervention. The documentation afforded by the representatives of the project offered rich description of the intervention as it was intended and foreseen to unfold by the actors initiating the process. The documentation were a means to gain relevant background information on the *context and the intended outcomes of co-creation* as well as insight to *the understanding of co-creation which guided the project*. The documentation also provided a foundation for coining research questions that would support providing interview data which would allow for their use in a deductive way. The documentation offered information relevant to understanding *how co-creation was seen to work, as in what activities were understood to support co-creation and how it was facilitated*. Thus, the documentation allowed for an understanding of the proposed logic of the intervention, answering to the questions *what works, for whom and in what context* (Pawson & Tilley 1997). In total 7 documents were utilized in the document analysis, entailing mainly documentation from the planning phases of the intervention such as policy papers, articles, Power Point -presentations and drafts related to reporting on the activities. From the documentation it was possible to identify the abstract theoretical underpinning of co-creation as viewed in this intervention (Shearn, Allmark, Piercy & Hirst 2017, 3).

The analysis of the interview data started with transcribing the conducted interviews. The interviews were then combined in according to themes that were identified as recurring in the separate interviews. As retroduction was applied, the analysis was not solely based on what was seen to emerge as recurring in the interview data. The analysis was conducted in a theory-driven way, taking into account issues that may emerged in a sole interview while identified in the reviewed literature and the developed programme theory. As the data analysis is approached through deduction, special emphasis was also given to issues that were not in line with what had been theorized originally. Interview data was initially synthesized according to identified themes such as the goals of the project, defining co-creation, purpose for co-creation, implementation of co-creation, challenges of co-creation, and outcomes of co-creation. The themes allowed for a more systematic consideration of the data.

To stay as true to the perceptions of the interviewees presented in the empirical data, context-mechanism-outcome linkages were formulated using coding directly from the narratives (Jackson & Kolla, 343). This allows for analysis which is not clouded by the initial understanding of the programme theory. Each context, mechanism and outcome was coded individually. Coding the mechanisms was informed by the identification of the resource the intervention provided and the response to the resource as how the mechanism presents itself. Based on the described contextual factors and the CMO configuration, they were then interpreted as either descriptive of the real, actual or empirical level of reality to provide better understanding of the nature of the mechanisms. In certain citations the descriptions of resources were presented for example as 'inclusion' which may be understood from the documentation, as pertinent to the resources of facilitated workshops, meetings and discussions with the various stakeholders. In total 77 citations were drawn from the interview data that were interpreted as descriptive of mechanisms influencing the intervention. From these citations 33 were seen to entail identifiable contexts, mechanisms and outcomes. The linked coding technique is seen to be especially suitable for formulating and testing programme theories when there is a small amount of data available (Jackson & Kolla, 346). The technique provides coherence in analysing scattered narratives (Jackson & Kolla, 346). Themes could be identified from going through the CMO-configurations. More than three CMO-configurations addressing the same mechanism was considered as relevant for further analysis for the reformulation of the programme theory. The number of the initial codes was very high requiring further analysis to group the codes to identify mechanisms that were considered as relevant findings in relation to the research questions. These mechanisms are presented in chapter 4 and their interrelationships discussed further in chapter 5.

The programme theory is coined based on literature and documentation which allow for the researcher to develop an initial understanding of the phenomenon. However, the programme theory is presented as a raw initial understanding rather than a verified result. The programme theory is



mirrored through out the analysis and provides backbone to the analysis especially in the case of more ambiguous and complex interventions such as co-creation (Shearn et al. 2017). The interview data provides more robust data to account for the context-specific knowledge that could not have stemmed from literature. The mixture of qualitative methods should provide more subject material for the successful identification of the relevant mechanisms in this intervention. Retroductive reasoning is applied after the abductive interpretation to analyse the phenomena considering its practical characteristic to offer an understanding of what it actually is, independent of the meanings assigned to it in the abduction phase. These include the factors that have not come to be in the specific intervention. Thus, retroduction does not satisfy its aim only through identifying the concrete factors, the mechanisms and structures, rather extends the inquiry to answering what the underlying factors are that need to exist for possible mechanisms to emerge in the given context. (Danemark et al. 2001).

### 3.3.3 Smart Community Pilot Project

This study draws empirical exemplaries from a Finnish-initiated intervention employing co-creation of a smart community pilot in Namibia. Finland and Namibia have a strong relationship built on decades of development activities between the two countries. Finland has been an active supporter of the Namibian freedom movement prior to its independence and has supported the development of the public administration in Namibia today. The main accomplishment of Finnish-Namibian development cooperation is however seen to be the education system in Northern Namibia. The partnership dates back to the late 1800's and Namibia continued to be one of the most significant receivers of development aid from Finland until 2007. Finland was one of the first countries that Namibia tied diplomatic relations, in 1990, and the countries' bilateral relations are considered exceptionally good. (FMFA 2019.)

After gaining its independence, Namibia prospered and is now considered as an upper-middle income economy (World Bank 2019). This classification also resulted in the end of technical aid to the country. The relations between the two countries are slowly moving towards a partnership that is founded in trading efforts. The long partnership has familiarized the two countries, Finland especially having an image in Namibia as a reliable partner. This shared history provides a good foundation for further collaboration across sectors. While Finland has been slow in recognizing the shift of its aid-receiving partner from a developing country to a steadily growing economy, the circumstance promotes further exploration of trading opportunities within the Finnish and Namibian markets. Much of this potential remains untapped and has created further efforts from Finnish actors

in promoting activities that would entail development through profit driven activities. (Virtanen 2013, 111-114 & 125-127.)

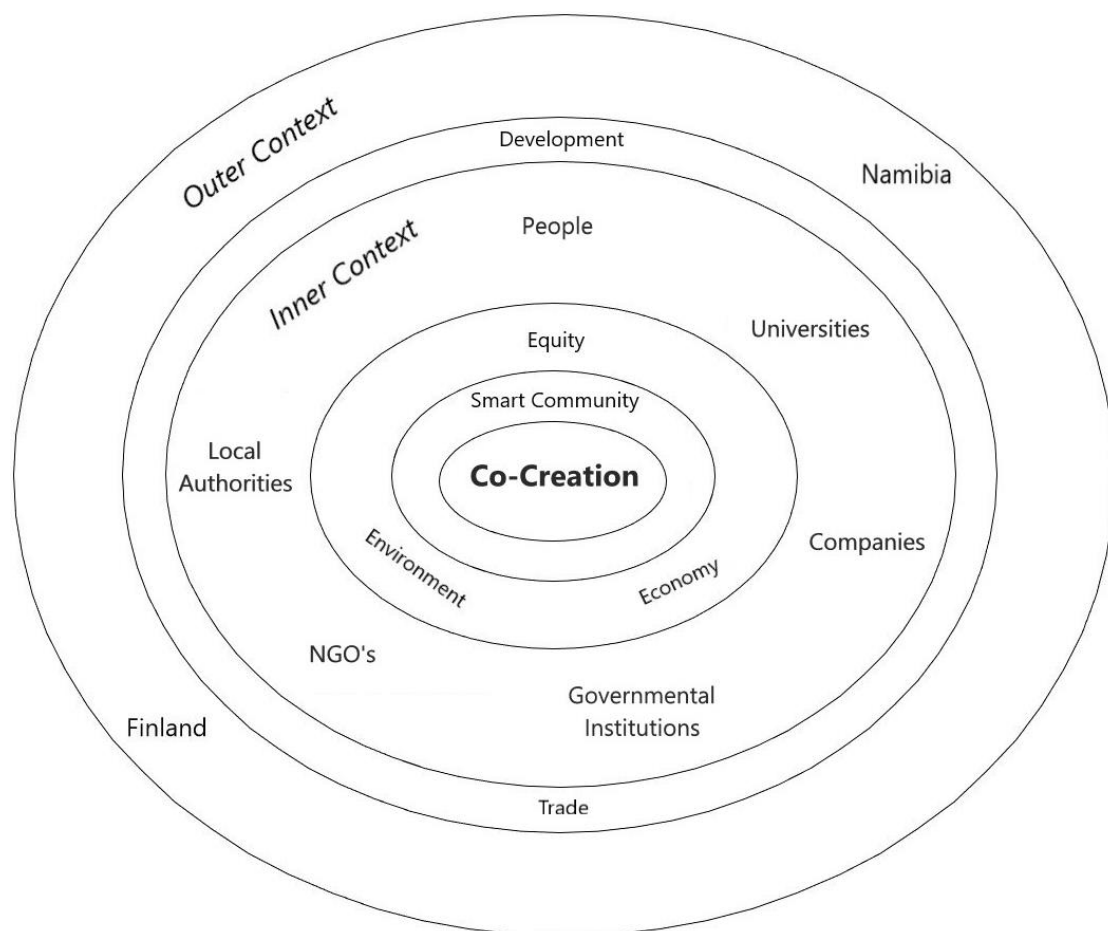
The goal of development activities has traditionally been that they would ultimately make themselves obsolete (Koponen 2005). Namibia, alike many former developing low-income economies have shown their ability to tap the market potential and raise living standards. However, in the neoliberal capitalist system, economic growth does not always translate to the sustainability or increased living standards of the society as whole. In many emerging economies, the necessary legal and socio-cultural structures are not always sufficient to navigate sustainable growth. Issues of corruption and disproportionate division of wealth create further needs in terms of development. The rise of certain economies presents a challenge to balance the scale between fostering sustainable development and creating mutual financial benefit. For Finnish actors in relation to Namibia, it raises questions in shifting from development aid to exporting expertise to Namibia in hopes of generating financial gain for Finnish companies. (Virtanen 2013, 181.)

Namibia is the second most unequal country in the world, when it comes to the equality in income distribution. With an alarming unemployment rate and increasing population growth, Namibia has one of the fastest urbanizing population in the world (ILO 2019; World Bank 2019b). The vast social and ecological issues which the rapid economic growth has induced in Namibia is expemplary of development not hinging solely on gross national income. The current circumstance calls for fostering sustainable practices in the country, which could become the core of the Finnish-Namibian partnership in the coming decades. Rapid urbanization presents a variety of challenges in relation to insufficient infrastructure, local governance and service provision to name a few. There is a great risk that a large part of the population will live in the margins of society as they move towards urban areas in search of livelihood and better living standards. The dire need for housing is a major concern for Namibia in relation to urbanization. The development can be expected to cause social issues such as segregation, ecological issues in relation to sanitation and economic issues including unemployment.

The notion of smart cities and communities has become a central approach to tackling the challenges urban areas are facing with the rapid urbanization development (Mayangsaria & Novania 2015, 315). The smart community concept is presented as a comprehensive solution to the problems emerging in urban areas. A smart community can be a neighbourhood or a city-region within which public institutions and companies as well as civic actors are connected, and citizens are deeply engaged in their communities (Coe et al. 2000, 3; Mayangsaria & Novania 2015, 316). The idea behind this approach is that this type of interconnectedness could address the three dimensions of sustainability, providing resilience in the face of rapid urbanization (Townsend 2013, 15). Embedded in the smart city and smart community concepts are cross-sectoral collaboration, human capital,

sharing knowledge, social learning, and engaging citizens and local knowledge in improving social services and infrastructure (Coe et al. 2000; Hollands 2008; Mayangsaria & Novania 2015).

The case smart community pilot project is presented based on the documentation on the project. The smart community pilot project was initiated by a Finnish business and research consortium that combined their multidisciplinary expertise for the development of the smart community concept for Namibia. They endeavoured to introduce the concept to a city-region in Namibia through a piloting project. The project as whole aimed to combine SDG's and business interests in developing a novel approach to addressing urban development in the African context. This would promote a redefinition of the relationship between Finland and Namibia through fostering business partnerships which would promote sustainability and mutual benefit for both nations. As this was a piloting project, the project also entailed a research project which intended to provide further academic input to fostering sustainable business activities between Finland and Namibia, or other countries with similar characteristics. The project included a variety of stakeholders in its efforts to answer trade and development goals while generating sustainability (see Figure 7. below).



**FIGURE 7.** Author's illustration of the wider context of the intervention.

Essential to the project, was capacity building in the local region in Namibia. The goal was to provide more than just houses, as the smart community concept also entails a variety of services and infrastructure that aims for creating a safe and sustainable community. The idea driving the project was the one introduced by the co-creation approach, to involve all relevant stakeholders, including citizens and customers in the process. The aim was to harness local resources and capabilities of local authorities and companies to support local ownership and generate local value. The project aimed to address issues in a systemic way to create a socially and environmentally sustainable solution to the challenges of urbanization faced especially in the African continent. The project was focused on developing and testing the concept through out its implementation in Namibia, with the idea of scaling it to other similar markets in the future. The smart community concept was seen as an alternative solution to the housing shortage, focusing on providing sustainable yet affordable housing solutions to the poorest in the region.

In addition to introducing a novel concept, the smart community, the project introduced co-creation to strenghten a culture of fostering stakeholder participation in relation to local authorities and companies. The early participants had a clear understanding that effort needed to be placed in developing the smart community concept with local stakeholders. The aim was to provide solutions truly servicing the inhabitants in need of housing. Co-creation was seen to support the inclusion of local inhabitants in community planning. The project would thus foster the inclusion of relevant stakeholders through the wider use of the co-creation approach by different actors in the city-region. The co-creation approach is deeply embedded in the project also in terms of the smart community concept. As the concept is founded on an idea of a community which is thoroughly connected, with each stakeholder engaged in servicing one another, co-creation is seen as a tool for assuring that habitants are truly connected and participating in developing their communities. Sustainability in this context emphasizes local ownership, social integration and the use of environmentally conscious materials.

The basis of co-creative planning is to take into account the values, needs and natural way of operating of each participant. The intervention can be viewed as an exemplary attempt to accommodate the ideology behind the contemporary sustainable development thinking, implementing grass-roots and localized approaches to solving societal issues affecting the international society as whole. The endeavor also illustrates the changing nature of the relationship between the two countries. More specifically, a shift from a traditional technical assistance relationship towards a trading partnership which could aid in fostering sustainable change in Namibia.

## 4 EMPIRICAL FINDINGS: MECHANISMS OF CO-CREATION FOR SUSTAINABLE DEVELOPMENT

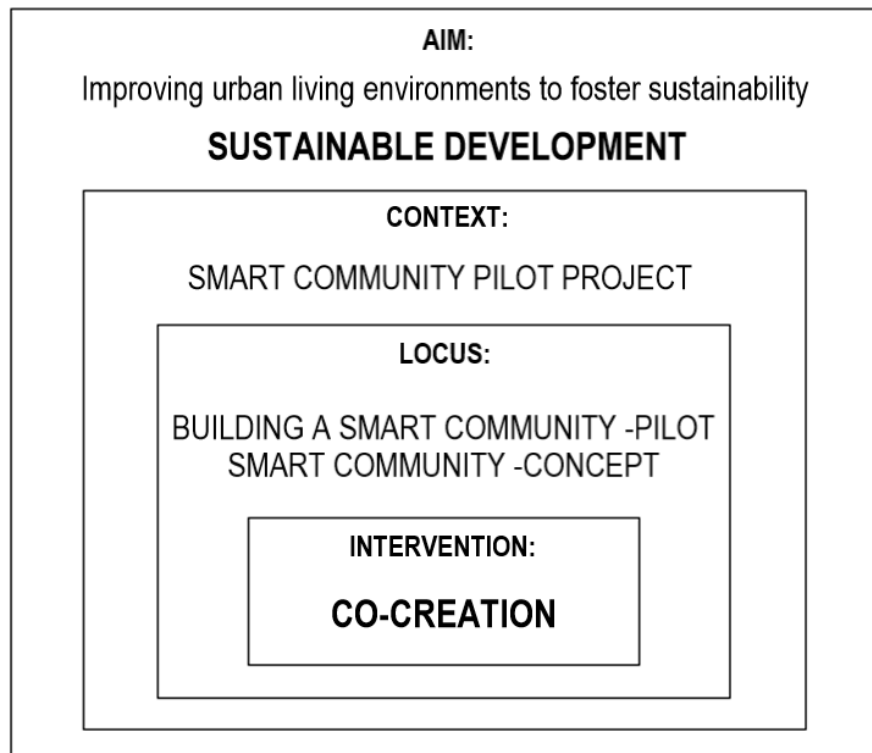
In this section the realist evaluation method is applied in analysing the empirical data collected through document analysis and interviews in a theory-driven way. The development and reformulation of a programme theory is the backbone of realist evaluation research (Pawson 2006, 2; Shearn et al. 2017). The researcher aims to generate an understanding of the logic of the intervention, in this case co-creation in the context of smart community pilot project in Namibia. The analysis starts with presenting the initial rough programme theory developed based on the document analysis to present the intended *logic of the intervention*: co-creation. The positioning of the intervention in the pilot project makes it challenging to distinguish the logic of co-creation as an intervention from its context. However, this is necessary for the study's purpose: exploring the context-specific nature of co-creation and its emergent mechanisms. The analysis then continues to explore the empirical data collected through interviews, aiming to identify the *emergent mechanisms of co-creation* specific to the goal of fostering sustainable development. The analysis will end with a reformulated *programme theory of the intervention*, exploring how the intervention is seen to actualize. Each section of this chapter aims to present identified mechanisms in relation to the context from which they are seen to emerge and their outcomes.

### 4.1 Initial Programme Theory

This initial programme theory presents the logic of *co-creation as an intervention*, in the context of the smart community piloting project. The logic is derived from answering what works, for whom and in which circumstances (Pawson & Tilley 1997). These questions are addressed inductively based on documentation produced by the research actors involved in the smart community pilot project and preliminary conversations with representatives of the project. The documentation provides a good empirical foundation for understanding the logic of the intervention as it has been generated mainly in the planning phases of the project. Thus, it describes the intentions of the project and its understanding of co-creation.

The intervention under study is *co-creation* of a smart community pilot and the concept of smart community to address sustainably improving the urban living environment in the Namibian city-region (see Figure 8.). Co-creation is an inherent component of the smart community concept. Communities entail a variety of stakeholders and groups of people with presumably differing and even conflicting needs and expectations. It is understood in the piloting project that generating sustainable solutions

requires an understanding and acknowledgment of these perspectives. The co-creation approach is deeply intertwined with the piloting project, aiming to co-create a smart community through building pilot houses and developing the smart community concept in a context-specific way to foster sustainability.



**FIGURE 8.** The intervention in relation to its context and expected outcomes.

The intervention aimed to foster sustainability in the face of rapid urbanization in Namibia, through building a smart community which would address the needs of relevant stakeholders in a sustainable way. The intervention has been emphasized in the context of the piloting project to communicate its guiding values of fostering *inclusion* and *participation*. The motivation for employing the intervention in the given context was to support success in addressing the housing shortage. Co-creation was viewed as necessary for accumulating relevant knowledge for the development of the smart community concept for the success of the pilot and its possible scaling to other similar contexts. The need for including marginalized groups in the development of the offered solution – the smart community concept – was apparent due to many previous failures of housing projects in address their needs. Often implemented by exogenous actors, these activities are also disengaged from contributing to the local economy, as they rarely utilize local resources and capacity. Thus, the aim of co-creation was first and foremost to involve relevant stakeholders to consider their perspectives in developing the smart community concept. Here they contribute to the planning of housing, services

and infrastructure which they would see to improve their living environment and promote livelihood in the community.

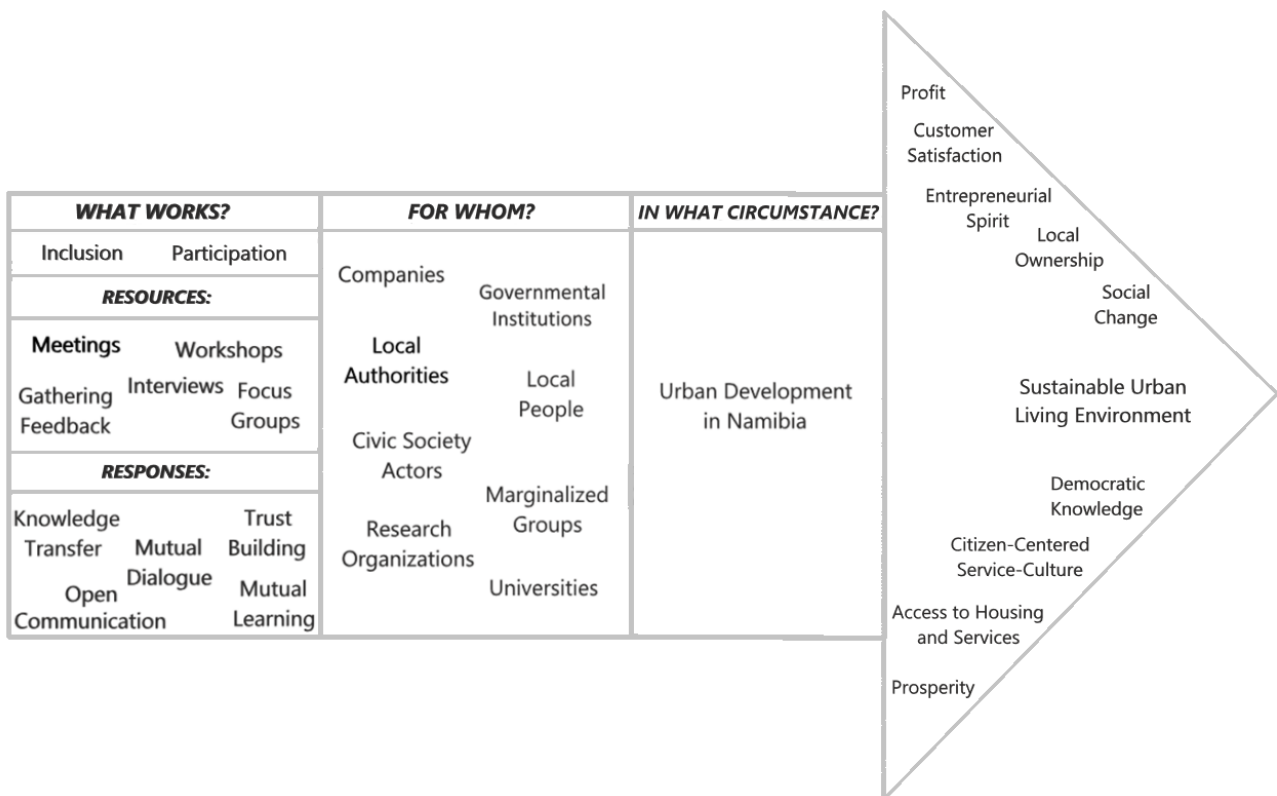
The intervention – co-creation – is highly intertwined with its context: the smart community concept and the piloting project as whole. The intervention entails co-creation both as a *way of thinking* supporting the consideration of various perspectives and a *way of doing* fostering the involvement of various stakeholders. The intervention is expected to disperse into a *way of becoming* in the local circumstance through its adoption by involved local stakeholders. Here co-creation would extend from generating sustainable housing and novel policy solutions, in the context of this specific intervention, to fostering a sense of community and social change at large.

The intervention introduces *participation* and *inclusion* with the aim that it would result in strengthening the culture of citizen and customer *participation* and especially the *inclusion* of the poor to generate sustainable solutions also outside of the specific intervention. *Participation* is focused on gathering insight from stakeholders that are representative of the community or society at large, when developing the smart community concept as part of the piloting project (Quick & Feldman 2011). Through participation, the intervention offers an opportunity for all relevant stakeholders to *contribute* in improving their urban living environment (O'Hern & Rindfleisch 2010). The stakeholders continue on to *select* features for the smart community pilot, and the pilot is adapted to accordingly. (Ibid.). *Inclusion* is iterative, connecting relevant stakeholders with the process to build the capacity of the community in sustainably addressing the issues emergent from rapid urbanization (Quick & Feldman 2011). Inclusion here emphasizes the role of marginalized groups along with all the other relevant stakeholders.

The logic of the intervention is: *fostering the participation and inclusion of multiple stakeholders will generate new knowledge and novel solutions for the sustainable improvement of the urban living environment, in the context of a Namibian city-region, and possibly in other similar circumstances in the future* (see Figure 9.). The intervention offers platforms to raise concerns and find synergies in different expertise. Co-creation is seen as an open-ended process. The combination of different knowledge and perspectives results in a novel understanding of the factors that are considered relevant in building a smart community and ways in which the challenges of rapid urbanization could be best addressed in the context of the Namibian city-region. An emphasis on the novelty of solutions to the Namibian housing crisis stems from experience expertise, with the previously offered solutions failing to address sustainability in a holistic way. Addressing the needs of relevant stakeholders resulting in mutual benefit is seen to foster sustainable local and regional development.

The intervention introduces resources to facilitate direct interaction between a large number of different stakeholders. Including a wider network of stakeholders is seen as necessary for maximizing the mutual benefit stemming from sharing knowledge and learning from one another.

Participation is highlighted as a core value especially in the areas of research and development, and has now been adopted also in other areas such as in business activities. The intervention truly endeavoured to include all relevant stakeholders from each level of society including national governmental institutions, local authorities, companies, universities, non-governmental organizations and local people. The generation of new knowledge and mutual benefit is done through interaction between these stakeholders. In the intervention a variety of resources were introduced to cultivate direct interaction. These resources consisted of meetings, workshops, focus groups, interviewing and gathering feedback with and from different stakeholders. The intervention allows each stakeholder to have ownership of the process and its results, thus aiming for mutual benefit. The key is openly sharing knowledge with a variety of stakeholders to allow dialogue and learning. This generates knowledge that is then disseminated with all stakeholders to enhance spillover benefit from the intervention for improving the sustainability of urban environments both locally and in other similar contexts.



**FIGURE 9.** *The logic of the intervention. Illustrated by the author.*

The logic of the intervention highlights that *the participation and inclusion of a variety of stakeholders in developing solutions for addressing their own needs promotes sustainability*. This may result in an intangible co-creation process reverting to its symbolic nature. The many logics embedded in the intervention may realize in a balanced way or may become contradictory causing tensions and even paradoxes. The guiding motivation for applying co-creation is to foster both the



profit driven business activities and the social development activities aiming to address the needs of the poor. The intervention logic entails many sub-logics related to the different stakeholders presented below:

For *Finnish companies* the participatory design aspect of the intervention is especially relevant in the international market. It assures demand for and higher quality of their offerings in a new social context which results in customer satisfaction and profitability. In addition, for *Namibian companies*, the intervention fosters international business partnerships through the use of local resources and capacity in implementing external initiatives such as building the smart community. This also creates profit for local business actors and creates wealth in the region.

For the included *marginalized groups* and *civic society actors*, the intervention improves the outcomes of international development activities in the region through agency, an enhanced capacity to exert power in relation to solutions which affect their circumstances. This promotes local ownership and supports the sustainable improvement of their urban living environment as well as inducing social culture through promoting inclusion.

For the involved *research institutions*, the intervention supports conducting participatory action research where researchers have a more active role as stakeholders in the intervention. They have an opportunity to share their knowledge directly with other stakeholders and gather tacit knowledge from the local context. This generates democratic new knowledge for the development of the smart community concept, improving the intervention for possible implementation in other similar contexts and thus support sustainable solutions to the issues addressed through the intervention.

For the involved *government institutions*, the intervention promotes public engagement and deepens private sector participation relevant to national development. The intervention supports 'citizen-centered culture of service delivery', 'entrepreneurial spirit' and more equal 'access to serviced land and housing,' which are all in line with the Namibian government's national Harambee Prosperity Plan an "Action Plan towards Prosperity for All" (Republic of Namibia 2016).

## 4.2 Key Emergent Mechanisms for Co-Creating Sustainable Development

The emergent mechanisms in this intervention were identified from the empirical data gathered through conducting interviews with individuals representing varied perspectives on the case smart community pilot project. The interviewees narratives were coded to identify the CMO linkages presented in them and find connections between these CMO linkages. A single mechanism may be further divided into an introduced resource and a response to the resource. The intervention is seen to provide certain resources to which the responses are highly contextual. Identifying these causalities further elaborates on the contextuality of emergent mechanisms.

Emergent mechanisms are triggered by responses that are not necessarily intended or foreseen. These responses change the nature of the mechanism and their outcomes. Providing further understanding of these mechanisms provides further understanding of what in co-creation works or does not work in the given circumstances and for who. Thus, the context-mechanism-outcome linkages presented in this analysis are seen ones that portray the nature of emergent mechanisms and their interrelationship. Unforeseen mechanisms first and foremost arise from the context, thus the focus of the analysis is on the context-mechanism relationship. (Dembek et al. 2018, 1610).

While the data illustrates a clear spillover to other activities, the intervention did not realize its objectives in generating tangible solutions implemented by the involved stakeholders. The construction of the pilot houses was halted and the piloting project came to an end without building a smart community in the intended city-region. This *outcome* highlights the significance of this study in uncovering what works and what does not work in co-creation. The initial programme theory presented in the previous chapter is tested throughout the following analysis of the relevant mechanisms of the intervention. The analysis then proceeds to reformulating the programme theory accordingly. The key mechanisms identified for addressing the emergent mechanisms are seen to support the generation of beneficial outcomes, thus highly relevant to the reformulation of the programme theory. Two key mechanisms *alignment and engagement* were identified based on the interview data which are capable to answer the emergent mechanisms that are found to hinder co-creation in the intervention. These mechanisms are especially relevant for co-creation aiming for sustainable development, as they foster the capacity of the relevant stakeholders to address their needs and context-specifically define sustainability. The emergent mechanisms found to hinder co-creation are illustrated through the mechanisms of *constraint, adaptability and reciprocity*. These three mechanisms are not necessarily either hindering nor beneficial to co-creation. However, in the context of this specific intervention these mechanisms are seen to result rather in unintended consequences that hinder co-creation.

#### 4.2.1 Alignment

*Alignment* as a mechanism relates to the differing objectives and expectations that stakeholders have when choosing to engage in the co-creation process. In the intervention alignment was emphasized in aiming to create sustainable solutions that address the needs of *participating* stakeholders, *including* the marginalized groups such as the poor. When aiming for sustainability, the intervention calls for the consideration of what is deemed sustainable by each stakeholder. Alignment speaks to the necessary redefinition of the goals of the intervention which shapes the co-creation process. All *contributing* stakeholders should also have agency in *selecting* features for the outcome of the process. Alignment calls for *transparency* and *trust*, which are founded on *continuous*

*and equal communication.* Without these characteristics, stakeholders will not be willing to share their knowledge and be honest in their communication which is the core of a successful co-creation process. Alignment requires each actor to share their often 'hidden agendas' along with relevant 'proprietary' information. Stakeholders are in no way demanded to offer all their available resources for the benefit of achieving the set goals, rather they should be expected to share all the knowledge they find necessary for the successful co-creation to take place. This above all entails sharing expectations with one another for all stakeholders to be able to understand one another's differing perspectives and consider how these expectations could be addressed when coining the problem and proposed solution.

*"-- it is maybe better that you somehow **try to build a kind of bridge to certain solutions** and you kind of **explain why** this seems to be important and you use certain kind of language that you are not too kind of normative, like I know better, but it seems that this is better for these and these reasons --." (Interviewee 3)*

When information about the emergent shifts and changes in the process are not shared with all stakeholders, the participants become disengaged. While it is rarely possible or even beneficial to have all stakeholders participate in all interaction with one another, it is important to disseminate information to all involved stakeholders about the *why* certain objectives should be realigned. *Transparency* through *dissemination of information* and *continuous communication* between stakeholders are identified as imperative for successful co-creation. In the given context, *accountability* becomes increasingly significant. Accountability relates to each one of the stakeholders involved. This accountability however relates to power, as it relies most on both the stakeholders initiating the process and the stakeholders who have the most significant impact on the process.

*"I think the main assumption is that every kind of groups or stakeholders are expected that **they are active and they are the best experts of their own circumstances** and -- well sometimes might be that some tools are needed to kind of **tease that knowledge out**." (Interviewee 3)*

Accountability would be expected not to be an issue in co-creation as it is considered an equal process where each stakeholder enjoys a position power and influence. In this intervention however, influence ensues from the investment of resources into the process. Each stakeholder can not equally *contribute* to the process through resources as they do not all have the same access to resources. This should not thus affect co-creation. However, when moving further along in the co-creation process resources become explicitly important when continuing on to the actual implementation of the proposed solution. As a dynamic and open process, co-creation is continuously vulnerable for shifts based on stakeholders' input. Relying on a certain stakeholder's resources may create a circumstance where this stakeholder's expectations towards the process

may have more gravity in the process. When this happens, co-creation becomes compromised with very limited opportunity to service its purpose: creating sustainable solutions *by* the involved stakeholders.

Alignment entails the open deciphering of how different stakeholders perceive sustainability. This is necessary from the very beginning of the co-creation process as the stakeholders need to start with the identification of the problems that they find necessary to address as a result of the process. As the co-creation process is dynamic and open, this alignment is necessary to support continuously. Without an emphasis on alignment the outcomes can not be expected to be context-specific nor beneficial in relation to sustainability. Sustainability requires a combination of perspectives and their consideration in framing common objectives as well as their implementation.

#### 4.2.2 Engagement

Alignment of objectives is necessary for co-creation especially when engaging multiple stakeholders for varying expectations and needs. It is the backbone of successful engagement, as it provides an outcome that is as beneficial for all involved stakeholders as possible. The initial programme theory illustrates an understanding of *participation* and *inclusion* as the key mechanisms introduced by the intervention to foster the co-creation of a smart community which addresses the needs of a variety of stakeholders in a sustainable way. These rely on *access* of stakeholders to partake in the intervention and value proposition. The interviewees agreed that involving a variety of stakeholders was truly necessary for the intervention. It was clear that each stakeholder was considered as experts of their own circumstances. It was also acknowledged that in certain circumstances, co-creation would not emerge organically, rather co-creation would need to be facilitated to combine the expertise of different groups which might not otherwise actively seek interaction with one another.

*"You understand that there are different kinds of knowledge among different stakeholders, and **in order to succeed in something you need those different kinds of knowledges.**"* (Interviewee 3)

The intervention intended to employ *inclusion* to build capacity and support *local ownership* of the process. The intervention endeavoured to provide enough resources to facilitate direct interaction to **"-- have as much say as possible for all different stakeholders."** (Interviewee 3). *Socio-cultural learning* emerged through out the process, supporting the involvement of relevant stakeholders. Especially in relation to *gender*, certain practicalities such as the location of meetings, their timing and nature were reconsidered to foster equal participation. For example, holding meetings during day time were seen as facilitating especially the further participation of women. Fostering deeper engagement of stakeholders in the process was however highlighted, calling for the intervention to

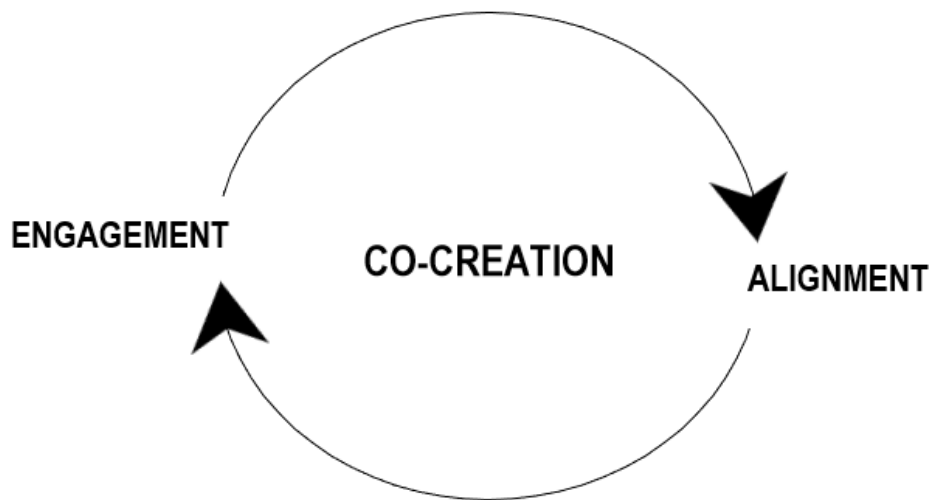
go beyond the inclusion of different stakeholders and offering an opportunity to participate. The opportunity to *participate* was not seen as enough for upholding the iterative meaningful interaction necessary for succesful co-creation.

***"You know are you just participating to give out data or are you really engaging are you part of the actual sitting down and planning okay we don't want a roof like that or a brick like that. -- after it is transitioned to engagement then only is does it come into co-creation. That is my belief."*** (Interviewee 2)

*Participation* and *inclusion* are preconditions for co-creation, thus entailing mechanisms relevant to succesful co-creation. However, co-creation has to transition to engagement as it is expected to generate solutions which are implemented by the stakeholders involved. This requires a higher level of long-term commitment from the stakeholders towards the achievement of common objectives. It is not only about the generation of new knowledge, rather creating tangible solutions. Engagement relies on *trust* and the experience of the interaction as *meaningful, purposeful and beneficial*. To foster these responses, resources are needed which promote *shared ownership* and *power* to influence the outcomes of the intervention. In order to pool resources for the benefit of the stakeholders and solving the identified problem, stakeholders need to be actively engaged in the process.

### 4.3 Answering Emergent Mechanisms

The identified emergent mechanisms are considered specific to the intervention highlighting the generation of sustainable outcomes. *Engagement* and *alignment* are co-dependent (see Figure 10.). Engagement illustrates shared ownership of the process entailing the *accountability* and *responsibility* of each stakeholder in actively *sharing their knowledge* and *benefit* from *mutual learning*. Alignment illustrates the consideration of the *expectations* of individual stakeholders in *shaping the objectives* of the co-creation process. These rely on the mechanisms of *access* and *transparency*. The dissemination of knowledge accumulated through out the process and its influence on the process is continuous and equal. This is required for the further redefinition of the collective aims in regard to opposing or alternative views. Furthermore, this entails the dissemination of *justifications* and *explanations* to all stakeholders on the resulting redefinitions. Engagement requires a willingness to contribute, which relies on the stakeholders understanding of the potential benefit acquired from the process. Alignment thus fosters engagement as it supports the generation of equal *benefit*.



**FIGURE 10.** Engagement and alignment are recognized as necessary for answering context-specific emergent mechanisms in the intervention.

Three main emergent mechanisms are identified which are specific to the context of this intervention: *constraint*, *adaptability* and *reciprocity* (see Table 4.). They portray issues that are highly intertwined and to result in rather hindering outcomes in relation to the intervention. Engagement and alignment are seen to support the aforementioned emergent mechanisms in a way which could yield more beneficial outcomes. In some way they all relate to the stance of one stakeholder in relation to another. They present the challenges in involving groups with differing means of exerting influence in the process either through their role in society or access to resources. They portray how it is necessary to consider realistic value propositions, the benefit captured through the project, and a concern for the positioning the stakeholders' differing contributions influencing the risks of involvement in the experience.

#### 4.3.1 Constraint

*Constraint* speaks to the real mechanisms emerging from the context of the intervention which limits the realization of *equal influence*. The intervention aimed to engage all relevant stakeholders from its initiation. However, the international setting of the intervention required further resources and contribution from the initiating stakeholders before being able to reach all relevant stakeholders. Engaging businesses, governmental institutions and ensuring funding opportunities introduce institutional structures which demand a more specific outline for the endeavor and its expected outcomes. The economic structures have a clear effect on the intervention, as there are certain financial frames in which the intervention needs to fit. This confines the process otherwise intended as open-ended to aim for servicing the expectations of these specific stakeholders. When operating in an international setting co-creation would not initiate organically as the stakeholders need to

knowingly seek interaction with one another and arranging direct interaction requires further resources. Namibian stakeholders were included in co-creation at a later stage, when initial plans and decisions were made regarding the smart community. The structures in place appear to demand a more cooperative and collaborative approach. Co-creation easily becomes an add-on to the more traditional partnering between organizations to then add further perspectives to the activities that are already decided on by the initial stakeholders.

*"It is of course not ideal that you have quite a lot of it already kind of measured and designed and all, and then try to get the kind of **buy in from stakeholders, by little things**."* (Interviewee 3)

Involving political actors is considered necessary, in relation to creating sustainable solutions it is also integral that they are not contradicting local, regional or national policies. Aligning objectives with political institutions is necessary for supporting the set objectives long-term and fostering synergy between different activities in the context. Political backing allowed the intervention to reach relevant stakeholders through using networks and means introduced by this stakeholder group. In its implementation phase however, the intervention became contingent primarily of the political will and thus the engagement of the political stakeholders guided by both institutional structures and personal interest. The intervention became vulnerable due to its dependency on the contribution of a certain stakeholder, resulting in an imbalance of power between stakeholders.

*"There were various meetings, but you know politics always influence everything and you should always remember that. **If a politician states that you should do this, you should do that.**"* (Interviewee 2)

The intervention could not service the diverse expectations of political actors in a way that would have allowed for or sustained their engagement. Much of the co-creative efforts relied on the local authorities to allocate land on which to build the pilot houses on. With the loss of political backing, the land on which the first pilot houses were planned to be constructed was redrawn from the project. The process was not able to readjust itself towards finding a new objective or new means for achieving it. Co-creation should make an initiative more resilient to the disengagement of some, as the continuous process is expected to be able to address these changes without being dependent on a certain resource or a certain stakeholder. There were suspicions of corruption related to the reallocation of land at the final stages of the process. The pilot houses could not be built, which would have been integral to ensure funding to provide housing for the poor. Time among other resources became scarce in continuing the process further. It is apparent that all structures of society present constraints on co-creation as an open-ended process entailing different stakeholders. The influences of financial, political and social structures are often unforeseeable, while highly impactful on the outcomes of the process.

### 4.3.2 Adaptability

*Adaptability* speaks to the stakeholders' influence on shaping the logic of the specific co-creation experience, as in what is done, for whom and how. In the intervention, the mechanism emerges from the actual, the immanent circumstances shaping the context. Co-creation by nature is an open-ended process with the objective to generate new knowledge for the creation of *solutions* to mutual problems. It was acknowledged that challenging circumstances often emerge where choices that are made do not service all involved stakeholders, however necessary to be able to generate tangible solutions. Achieving a common consensus is not always seen as feasible or even possible, when contradictory views are presented in the process. However, it was noted that it is the continuous communication and providing thorough justifications of the shifts during the intervention, which allows for a successful co-creation process between diverse stakeholders.

The urgency of the housing shortage in Namibia creates fruitful grounds for co-creation as stakeholders can readily identify a mutual problem that should be addressed and if solved, would benefit the society at large. Stakeholders such as the homeless and community members living in poor conditions have high motivation to actively participate in the co-creation process. The pressing nature of the housing shortage also introduces challenges to co-creation. The sense of urgency in solving the problem requires the process to adapt quickly to addressing the issue in a way that is considered *realistic* and *practical*. Managing expectations is one aspect of aligning common objectives. Co-creation is considered as effective when relief is needed in a timely manner, as it enables the use of existing resources and creating context-specific solutions. However, when involving multiple stakeholders, the continuous interaction and common redefinition of what should be done and how can become time consuming and requires resources from each.

*"It could have happened because people liked the idea. But because of the time factor, **people will anytime choose to stay in a single house** rather than having a library, clinique or cinema"* (Interviewee 1)

There is an apparent contradiction with co-creation for sustainability in relation to urgent needs. Motivation and enthusiasm are necessary for stakeholders to become truly engaged in the process, which in itself is a prerequisite for co-creation. In addition, co-creation should be the ideal approach to fostering solutions to dynamic issues which affect stakeholders, be it on an individual, national or global level. While the urgency of the issue is also a consequence for previously failing interventions, the urgency grows with time making it more challenging to focus on more holistic and larger scale solutions. Stakeholders may be inclined to turn to solutions that may be less ideal and can be implemented in a shorter time frame. Co-creation requires resources from each participant without



having clear steps towards a clear objective. In addition, the project being a pilot, co-creation was implemented as means to test the concept, ensuring that it considers all necessary perspectives and answers to the needs identified. Thus, the intervention was founded on uncertainty on how it would come to be in the local circumstance and what the smart community would eventually entail. It was also not clear if and in what way the involved stakeholders would actually benefit from the process. It would not necessarily be directly beneficial for the involved individuals however their participation would support the development of solutions for the benefit of their community as a whole.

It is necessary to provide justification in relation to the reshaping of the process, both its means and objectives. Not disseminating information and giving a justification for the direction the process is taking was seen as a cause for disengagement, which would ensue even after the intervention came to an end: “-- if we [pilot project] go back today, **I am sure we would have lost half of the number of the people who participated.**” (Interviewee 2). In relation to sustainability, this outcome is especially relevant as this would create distrust in future development initiatives such as this intervention. There needs to be a careful consideration and dissemination of information to stakeholders, for the stakeholders to *align* their objectives and ensure continuous *engagement*. The intervention initially targeted a specific stakeholder group, the poorer of the community, who are in dire need of housing. For both ensuring financing and promoting social integration, it was understood quite early on that ensuring necessary resources for servicing the poor would take a longer time than initially thought. This is a natural part of the co-creation process. However, in this intervention it was apparent that explanations need to be provided for the shifts that are taking place and all decision-making justified to all parties involved. Without justification, relevant stakeholders may become disengaged from the process. All stakeholders should be able to capture certain value from the process. While all solutions will inherently target certain stakeholders more than others. A processual understanding of what is to be co-created needs to be communicated when the shared vision is initially set and though out its reshaping. The expectations and objectives of each stakeholder should be aligned throughout the process to avoid blindspots between the stakeholders, minimizing risk. Without active dissemination of the information that influences the shaping of the co-creation process, it may appear unjustified or unexpected to some stakeholders that have a different perspective on the matter.

#### 4.3.3 Reciprocity

*Reciprocity* speaks to the *contribution* of each stakeholder, which is expected in any co-creation activity. Reciprocity as a mechanisms emerges from the empirical experiences and perceptions of the stakeholders in the local context of the intervention. Accountability is integral when answering to acute problems in the context of development. Some stakeholders may be dubious towards the

motivations driving the initiating actors, especially when they are coming from outside of the local context. The experience of taking part in the process should always highlight reciprocity in considering all the generated knowledge and relate to each contribution with an equal stance. When choosing to participate in co-creation, a consideration of the risks and benefits of participating in the process is the basis of engagement. When including stakeholders representative of a specific community, social positioning is further influenced by social status. In the intervention power relations founded on social status in the community were found to influence how certain individuals partake in a meeting, as in how the stakeholders relate to one another and how they communicate their opinions and desires through out the process. These factors also relate to reciprocity, as it further emphasizes the initial stages of stakeholder's considering the risks and benefits present in the process. For example, communicating opposing views or openly sharing issues related to other represented stakeholders can seem as a risk which weighs heavier on the scale in comparison to possible benefits. This obstructs the process. Reciprocity highlights the importance of equal agency and an experience of each contribution as being considered with care.

Each stakeholder explores their needs and wants in relation to what could be co-created. Some confusion revealed in relation to the nature of the intervention. It was not clear to all parties how the project intended to balance its aims for generating profit and fostering sustainable development in the region. Employing a business endeavor evokes uncertainty related to stakeholders prioritizing personal gain, profitability, which makes it more challenging to keep all stakeholders engaged and accountable to the process. Additionally, political stakeholders had a significant role in the intervention, which due to power structures may portray an emphasis on a specific stakeholder groups position. In co-creation all stakeholders represent themselves, thus personal gain is a natural part of the intended outcomes. Co-creation aims to find commonalities between these interests to accommodate the different objectives in mutually defining and solving problems.

***"When we were having workshops with the common people, many of them were like okay **we can have this workshop and we can tell you things, but I dont know if it will change anything.**" (Interviewee 3)***

There had been some emphasis on the intervention focusing on a piloting phase of the project and thus managing the expectations of involved stakeholders. However, the interventions failure in addressing the housing needs in the region created a sense of disappointment and frustration. Many solutions to the housing shortage in Namibia have been introduced by governmental institutions and numerous external actors have taken part in implementing housing projects. It is apparent that there have been challenges in these previous endeavours which present a need for strengthening the agency of local stakeholders and involving them in creating the solutions to truly address their needs. There were experiences of previous projects providing housing that ended up inhabited due to them not addressing the needs of local community members. The acute nature of the housing shortage

and previous failures in addressing the dire housing circumstances of the marginalized highlight accountability of the stakeholders initiating the co-creation process. This accountability stems from the heightened risk of negative spillover to initiatives and activities outside of the intervention.

*“Now we created a sense of hope and then we took that hope away with no explanation why, with nothing. It is as though we left people hanging, you **know it is building trust.**” (Interviewee 2)*

The intervention entailed numerous meetings between different stakeholder groups, with various participant combinations. Rapport was successfully built between some stakeholder groups. However, some highlighted the need for meetings which would have enabled more direct communication for example between representatives of the participating businesses and the groups the proposed housing and service solutions were intended for. This would have supported timely sharing of pertinent information regarding the practical framework for the solutions, such as the possible pricing of apartments. This in turn could have provided a more defined understanding of the process and its possible outcomes, which would have supported the stakeholders in guiding their contribution. For example, considering what kind of knowledge would have been most valuable for the process. In the intervention, some stakeholders were left at the end of the process without an understanding of how their contribution was viewed and if it had an impact on the process. It is then challenging for the stakeholders to evaluate their experience of co-creation and especially their agency in the process in relation to others.

**TABLE 4.** *The identified emergent mechanisms illustrated by the author.*

Context	Resource / Reasoning		Outcome
	Emergent Mechanism		
<i>Real level:</i> Power relations stemming from economic structures and political system	Political & Financial Backing	Inbalance of Power	Unequal ownership between stakeholders
	Confinement		
	Need for Resources	Dependency	
<i>Actual level:</i> Sense of urgency stemming from housing shortage and inequality of living standards in the city-region.	Urgent Need	Value Capture	Shift towards new value propositions
	Adaptability		
	Targeting	Justification	
<i>Empirical level:</i> Suspicion stemming from previous experiences of agency in similar initiatives	Equal Inclusion	Social Positioning	Accountable consideration of contributions
	Reciprocity		
	Building Rapport	Responsibility	

## 4.4 Reformulated Programme Theory

The intervention relies on direct interaction with relevant stakeholders to co-create sustainable solutions to address the housing challenge in Namibia and improve the living standards in the city-region. These stakeholders are both Finnish and Namibian companies, research and higher education institutions, public funding agencies, governmental institutions, local and regional authorities, civic society actors, citizens of different income levels and age groups, and a variety of religious and ethnic groups. In the co-creation process special sensitivity is paid to the poor as they are in the core of the most urgent issue: need for affordable housing solutions. The smart community, aiming to be sustainable, also considers the environment as one stakeholder in the process. Social integration is at the core of a sustainable community, thus also highlighting solutions that are attractive to a variety of community members belonging to different aforementioned social groups represented as relevant stakeholders.

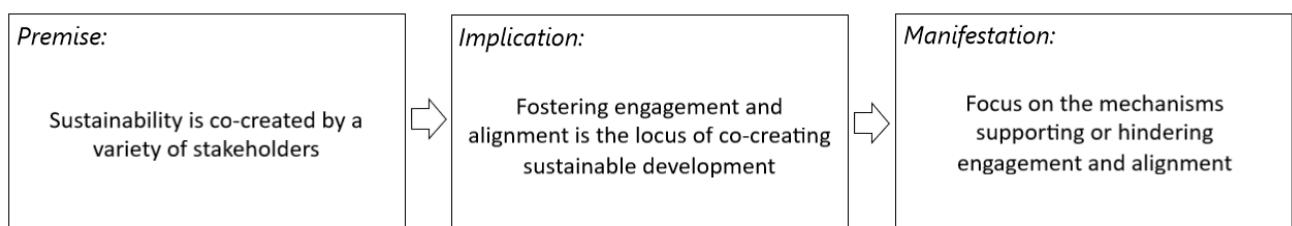
The activity is reliant on profitability for the companies which provide the necessary expertise and resources for the implementation of the intended smart community. Their engagement in the co-creation process strengthens the Finnish-Namibian partnership, which is evolving from a development cooperation partnership to a trading partnership. The co-creation process is not entirely open-ended, being partly framed by the co-initiating Finnish stakeholders as aiming to create a sustainable smart community in Namibia with an initial founding concept of the smart community already designed. The local authorities have agency in selecting whether they support such a community to be built in their region. National and regional policies are taken into account to support sustaining the built community long term and to avoid overlapping or contradictory practices. As the intervention is implemented in an international setting, all stakeholders are not expected to participate equally through out the process, while they should hold the agency to influence the results of the process. The intervention employs an impartial body to facilitate the co-creation process. This is seen to foster the generation of a common consensus between stakeholders and the provision of tangible solutions as the outcome of the process.

As there is no universal definition for sustainability which could be assumed, sustainability is expected to emerge as a balance between the benefit of all stakeholders. As there are a variety of actors with different expectations of benefit and different means to contribute to the process, special attention should be paid to the equality between the stakeholders' influence on the process. In the studied intervention, this presented as a challenge which may be considered as inherent in any multi-stakeholder co-creation process. The guiding premise is that the results of the co-creation process enhance sustainability. Thus, none of the stakeholders should be benefitting at each others expense from the process, especially in consideration of the three dimensions of sustainability. While all stakeholders are experts of their own circumstance, they are also considered as experts of what is

considered as sustainable in their own circumstance. The result of the co-creation process entails a novel understanding of sustainability in the given context as well as an understanding of relevant considerations in developing the smart community. These include for example the available local resources which may be employed in the smart community to enhance local ownership.

The co-creation process employs door-to-door visits, public hearings, meetings, workshops and focus groups interviews. These activities are conducted in a context-sensitive way to allow for the equal participation of all relevant individuals, despite their gender, age, ethnicity, religion, race or status in society. To allow free participation of the relevant stakeholders and support honest interaction, these platforms should be directed to have different participant configurations while pertinent information should be shared between all stakeholders in a timely manner. In order to answer the context specific mechanisms, emphasis needs to be placed on a deeper engagement of all relevant stakeholders and continuous alignment of their objectives and expectations related to the process (see Figure 11.). These two umbrella mechanisms constitute co-creation in a multi-stakeholder setting which aims to generate sustainability. In addition, the intervention promotes introducing a variety of different resources to the open process in order to promote generating mechanisms that would support engagement and alignment in an iterative manner.

At the end of the process all stakeholders are kept informed of the status of the intervention and possible accumulated knowledge and their contributions are considered in an accountable manner. This pertains also to the reshaping that takes place in relation to the problem at hand, the chosen solutions and the ways in which the solutions are aimed to be implemented. Possible spillover effects, the co-creation experience as well as the intangible and tangible outcomes of the process are evaluated to foster benefit for the involved stakeholders. The intervention aims to pilot and test the generated means of improving the urban living environment to foster sustainability as well as support a business partnership between Finnish and Namibian stakeholders. The generated knowledge is thus not only to be considered a key component of the co-creation process, rather an integral objective in itself. An emphasis should thus be placed on the distribution of this knowledge for shared benefit.



**FIGURE 11.** The premise, implication and manifestation of co-creation for sustainable development. Illustrated by the author (categories adapted from Prahalad & Ramaswamy 2004b, 5).

## 5 DISCUSSION AND CONCLUSIONS

This chapter continues to provide further insight to the sub-questions guiding the study in uncovering the mechanisms of co-creation in a sustainable development context: what works, for whom and in what context. Co-creation is seen to hold potential in fostering endogenous development of sustainability by relevant stakeholders. *What works in co-creation is its open nature allowing for the engagement of a variety of stakeholders to align their objectives to generate sustainable solutions.* The study has defined co-creation in relation to sustainability as collectively verifying problems and creating solutions through harnessing resources, capabilities and expertise for shared sustainable benefit (Arnold 2017, 180; Ind & Coates 2013; Kruger et al. 2018, 402; Ramaswamy & Ozcan 2014, 267; Steurer et al. 2005). While it is a novel approach that is seen as a useful tool to uncovering context-specificities, it is also important to acknowledge that the practical implementation of co-creation is highly subjective to mechanisms emergent in the context. The intervention introduces certain resources into a given context, which generate a certain response in the stakeholders involved (Pawson & Tilley 1997). Co-creation for sustainable development is found highly dependent on how individuals engage in reaching common objectives and on how their individual experience expertise and expectations may be aligned (see Arnold 2017, 187; Kruger et al. 2018; Ramaswamy & Ozcan 2014, 251). It is imperative for co-creation to place substantial effort in establishing strong relationships and continuous communication between all stakeholders (Arnold 2017, 187).

This study provides a further understanding of mechanisms as highly causal, which can not be managed or controlled to provide specific outcomes. However, this would also not be beneficial to the co-creation process which is to be considered as open, inviting different influences. As Max Weber (1917) stated in his speech *Science as a Vocation*: "the various value systems in the world are in unresolvable conflict with each other." A century later we continue to struggle balancing between the various value systems existing in today's world. Each individual has their own predispositions rooted in the cultural, historical and social structures that they are themselves a part of. While some mechanisms of co-creation may be identified the, process is highly causal, giving limited means to implement it with the expectation that the result will follow the rationale of its initiation. Cabezas and Diwekar (2012, 88) have actually proposed that the differences between stakeholders' value systems foster sustainability as groups are not as inclined to yield to similar objectives. Disagreement between stakeholders allows for a more equal consideration of factors, which is seen to support drawing attention to activities which would also be beneficial in all dimensions of sustainability. Thus, co-creation is intended to generate a multitude of different

potential solutions to any given issue, however as shown through out this study, not offering much of a guideline for how to navigate them.

*The context of the intervention fostered mechanisms that yielded many unforeseen outcomes.* The relationship between the mechanisms generated by the resources introduced and the contextual mechanisms stemming from the 'real', may result in unexpected responses from stakeholders. Tensions were apparent arising from aiming to foster equality between stakeholders as they all have differing resources to contribute and objectives. The notion of equal benefit may seem paradoxical as creating something new and supporting sustainable aims may be expected to be more beneficial to certain stakeholders especially in a short-term view focusing on tangible results. It is apparent that there is a contradiction which is present in a large-scale and international co-creation process which is initiated by institutions. Co-creation should be an open process, however the structures affecting this intervention show that similar interventions are bound to present certain characteristics of cooperation, which introduces more constraint to the process and its objectives. It is its application as an add-on approach to interaction as a part of a constraining project context which calls for further consideration on what the purpose of the intervention truly is and does it prioritize equality between stakeholders or not. The dynamic nature of co-creation challenges its successful application in a constrained context. This dynamic nature should also support its adaptability in shaping into a creative process which manages to succeed regardless of the presented challenges. An intervention should introduce many different mechanisms to support resilience, as this will hinder the influence of unforeseen mechanisms which are bound to emerge from the context (Dembek et al. 2018, 1610).

In relation to sustainability the outcomes of the intervention would have been expected to be beneficial for all. The intervention mainly generated knowledge as it did not realize its tangible outcomes. Thus, *the intervention does not necessarily work for any specific stakeholder group*, however the generation of new knowledge may be considered an equal outcome in itself. The dissemination of this information would be especially important to share the benefit of this co-creation process. The philosopher David Hume (1739-1740), who can also be considered a forefather of critical realism, famously stated that "there is no ought from is" in *A Treatise of Human Nature*. He speaks to a point which is also present in co-creation, as the generation and acquiring of knowledge does not in itself demand action. It is apparent that not all stakeholders will be content with the outcomes of a co-creation process as achieving consensus requires compromise. Not all knowledge will be valued and utilized the same. Hume (Ibid.) himself would support this notion as he would deem equality as unsustainable in itself. The addressed in relation to the mechanisms of *reciprocity* is that the generated knowledge may be employed in the process in an unbalanced way (Arnold 2017, 187). It is apparent that knowledge which is in line with existing knowledge is more readily accepted than knowledge that is contradictory. It is the adaptation to the received insight and a collective alignment to the introduced knowledge which sustains or generates mutually beneficial

outcomes. Co-creation of sustainability requires each stakeholder to be willing to 'step into another's shoes' to truly adapt to their perspectives, experiences and expectations of the collective efforts.

To foster truly endogenous and sustainable development, it is necessary to include a variety of stakeholders in the co-creation process. The wide objectives of the intervention creates the challenge of aligning them and aiming to address them all in line with sustainability is extremely challenging, if not even impossible. It is important that it is clear that the process focuses on addressing a problem that may in all its complexity be framed into a coherent entity, such as in this given intervention. In any activity the different dimensions of sustainability will become subordinate to another eventually, the focus is thus rather on their equal consideration and the common discussion between stakeholders on what they see as sustainable or not in their given context.

Ideally all stakeholders would be engaged in the process early on. In the studied intervention, the pilot project did not abstain from including different stakeholders although it makes the intervention much more challenging to navigate. In some circumstances it has been avoided completely in fear of negative economic, social or environmental effects (Arnold 2015). The Finnish stakeholders, while unable to co-initiate the co-creation process with all of the Namibian stakeholders in the beginning, took the approach into account from the early planning phases of the intervention. This provided structures for the project itself that supported the successful implementation of co-creation (Keays & Huemann 2017, 1211). Intervention was also sensitive to the context in planning the co-creation process with sensitivity to stakeholders varied opportunities to participation which allowed for the inclusion of for example poor women, which are often left out of development activities (Nähi 2016, 427). Facilitation of the intervention by the research group or another rather impartial stakeholder may also be a necessity for co-creating with such a wide stakeholder selection in an international setting. In a development setting, the status of certain participants may affect the knowledge shared by others and the diversity of stakeholders may otherwise create conflict between the stakeholders, all hindering the co-creation process (Nähi 2016, 427). However, the importance collective participation of the representatives of the businesses and other stakeholders was emphasized. Thus, it is important however that all actors equally engage in the co-creation process.

The notion of what is considered beneficial is highly subjective. Soman et al. (2014, 11) note that fairness and opportunity can be perceived as beneficial in themselves. As the realization of the benefits for all stakeholders is integral for any project, it is recommended to integrate the definition of benefits, entailing expectations, already at the beginning of the co-creation process (Keays & Huemann 2017, 1210-1211). Simply the empowering experience of taking part in a co-creation process can be seen to bring about change in itself (see e.g. Soman et al. 2014, 11). However, it is worth noting that empowerment requires a sense of agency which is rooted in power. For stakeholders to feel empowered by the co-creation process, they should have the experience of



sharing in the decision-making power (Nähi 2016, 427; Ramaswamy & Ozcan 2014, 268). This means that each stakeholder should share power over the pooled resources, their interactions with one another and the knowledge which is generated through the process. It remains unclear whether the consortium initiating the project and facilitating the co-creation process was willing to do so. In co-creation there is clearly a juxtaposition between the top-level stakeholders and the bottom-level stakeholders. When each is afforded an opportunity to pursue personal gain, one can be expected to refrain from utilizing whatever influence they may have on the process.

The issues of benefit and power are highly relevant to the emergent mechanisms of the intervention. The approach endeavors to enjoy others' resources. In practice, co-creation is generally initiated by a certain stakeholder with their own objectives for the process. There is thus a risk that the initiating stakeholder acts as the sole beneficiary at the end of the process, making the executive decisions on how to utilise the generated knowledge. There has been much discussion on the topic relating to businesses engaging in co-creation with their customers, while less attention is drawn to the matter relating to citizens. Co-creation in a sustainable development context could potentially be used to guide stakeholders to take ownership and accountability for activities which they hold no power over. The initiatives could employ co-creation as means to root further exogenous ways of thinking or solutions to a local context through their interaction with such a large variety of stakeholders. In relation to business activities Ramaswamy and Ozcan (2014, 287) coined that co-creation shifts the relationship with customers from "build it and they will come" to "build it with them, and they're already there". When discussing development which engages companies and emphasizes profit, this introduces a new level of accountability in relation to the stakeholders engaged in the local context (Galvagno & Dalli 2014; Nähi 2016, 427). In addition, while development activities which are funded externally work towards making themselves unnecessary. A company will always endeavour to strengthen its standing in a certain market. In the explored intervention the emphasis on prioritizing the use of local resources and partnering with local companies and civil society actors to provide the necessary services for the smart community offers an assurance of created benefit for the community as a whole. The question still remains relevant in relation to the marginalized groups in society that might not enjoy the spill over effects of the intervention.

Spillover is an important aspect of co-creation as the involvement of stakeholders in the process also affords additional resources for the use of stakeholders in their own processes. This fosters benefit. The notion of capturing benefit is extremely essential to co-creation in a sustainable development context. The benefit created should to be attainable to all stakeholders. This is what co-creation aims to answer to in emphasizing local ownership and inclusiveness in fostering endogenous sustainable development. Each stakeholders' attainable benefit is a necessary consideration for co-creation of sustainability. This links directly to the discussion on how aiming for economic growth induces inequality and set certain stakeholders that are unable to capture the

created benefit vulnerable to the negative impacts of the otherwise positive development. In aiming to reach sustainable development, the aim of co-creation is to also reach stakeholders which are unable or unwilling to take part in the process through direct involvement. In a sustainability setting, one of these stakeholders may even be considered the environment (Yang et al. 2017, 482). Sustainability has proven as a concept allowing for the exploration of the tensions emerging from economic and social benefit as well. Sustainability supports the logic of co-creation shown in engagement and alignment, shedding light on how co-creation aims to achieve sustainable development.

While initially the notion of having a frame such as sustainability for a co-creation process seemed somewhat contradictory to the nature of co-creation as an open-ended process. However, through an understanding of the lack of rigour in the concept, it has become evident that co-creation, allowing for equality of its stakeholders, embodies sustainability. To support fostering as many different mechanisms in an intervention secures solutions which are holistic. As in a project context co-creation is found to by nature have a stakeholder in the role of initiator or even facilitator of the process, it is important for the equality of the process, that the generation of novel mechanisms are supported. Whenever taking part in *creating*, a sense of novelty and possibility is inherent. This opens the whole process inevitably to the influences of causality in chance. This introduces an idea of co-creation in relation to sustainability as not an open-ended process, rather a completely open one, giving the process an opportunity to take shape even more context-specifically through its stakeholders.

It is imperative to employ *dialogue* between differing opinions to create something novel and truly foster active development. Certain values need to give way for others in the process. Different groups will have differing value-systems and opinions. Co-creation can not single handedly change empirical realities as they rely on the real structures which mold with time and through the influence of many. When noting that compromise is a natural part of co-creation, one stakeholder is expected to fold in their ways of valuing. It cannot create something new without letting go of the old. The intervention came to an end without reaching its concrete objectives while the study has been ongoing. This has demanded further depth to understanding the mechanisms outside of tangible resources, evidence of responses to them and their outcomes. The emergent mechanisms clearly resulted in outcomes which the intervention was not resilient towards. Even some social innovation activities have been found to have unintended negative impacts in their contexts (UNCTAD 2017).

The concept of *co-destruction* offers further depth to understanding mechanism and their relationship with one another and their outcomes. (Plé & Cáceres 2010; Echeverri & Skålen, 2011; Järvi, Kähkönen & Torvinen 2018; Makkonen & Olkkonen 2017). Most literature on co-destruction focuses on the tangible destruction of value or benefit of a certain stakeholder, in relation to for

example reputation. In the context of this study however, co-destruction can be understood in two ways. It has shown as not utilizing the full potential of co-creation and thus not enhancing sustainability to the means capable. In the intervention for example not fulfilling the value proposition of the process, generating the expected benefits, hinders co-creative efforts in the future as the stakeholders are left with negative experiences of their involvement. Disappointment and distrust in the intervention can be viewed as co-destruction as the created benefit is decreased and engagement becomes challenged in future interventions. To an extent, co-destruction may also be seen as a necessary side product of any co-creation process. The famous statement of the renowned artist Pablo Picasso in relation to artistic creativity seems to hold a standing in relation to the co-creation process as well: "Every act of creation begins with an act of destruction." *Change* is an inherent component of co-creation and sustainable development. Both aim to create novel solutions, that often replace existing practices and processes. Any stakeholder composition is expected to identify multiple common problems and thus also multiple possible solutions to these problems. Only one or a few are however selected by the stakeholders to focus on. In relation to sustainability, co-destruction pertinent to the change generated through out the co-creation process can in many ways be considered also positive. While co-creation should be beneficial to all participants, the sustainability objective introduces a longer-term perspective to the activity. A certain type of benefit can be replaced by another in this equation. One might lose on additional profits as a result of coining novel solutions that are not as cost-efficient for a certain stakeholder, such as moving towards solar energy replacing other technologies in place. While the solutions that are aimed to generate are tangible ones, the benefits may seem rather intangible and somewhat difficult to trace to specific stakeholder groups. result one may however share in the benefits of living in a community where ethnicity and income level does not divide neighbourhoods. The outlook of the process is of a holistic nature when introducing sustainability as an objective.

This study finds that co-creation and co-destruction are to be viewed as opposite sides of the same coin. Co-destruction is not in itself to be viewed as a mechanism. It is apparent that a mechanism will not inherently result in a negative or a positive, as it is the interrelationships of different mechanisms that generate specific outcomes. The nature of the outcome is also to be weighed context-specifically as either beneficial or hindering in relation to the objectives set together for a certain co-creation process. This again relates to the context-specific, rather than universal notion of what actually constitutes as sustainable. Mechanisms will always present in unforeseen ways, as mechanisms are not stagnate. They vary according to context and change through out the process. Co-destruction offers a useful perspective on co-creation when considering its effects. The concept can act as a lense to viewing certain identifiable phenomena related to co-creation processes.

Co-destruction often only becomes apparent after the solutions created are starting to be applied in practice. In relation to sustainability, these affects may only be identified after a long period of time has passed, making it challenging to identify where they have originated from. Causality of such an open process is also challenging to follow, thus making the outcomes difficult to assess. This study has focused rather on the mechanisms themselves and not on the outcomes of co-creation. The same mechanisms may be expected to present themselves as co-creation or co-destruction, rooted in context and resulting in outcomes that are either beneficial or not to sustainability. As these mechanisms are in many ways intertwined to one another, identifying aspects of co-destruction in a co-creation process is difficult. Having employed a critical exploration of co-creation in this study, the co-destruction concept is seen as pertinent to the studied intervention and expected to hold its stance in any co-creative activity. Co-destruction should be a consideration from the initiating phases of co-creation, especially in relation to the risks and attainable benefit of participation.

The study aimed to provide insight to the emergent mechanism of co-creation in a sustainable development context. *The findings suggest that in this intervention engagement and alignment are the key mechanisms which should be fostered to support successful co-creation of sustainability. The presented emergent mechanisms constraint, adaptability and reciprocity were in this intervention found to foster rather hindering implications.* These can be seen to have resulted in the intervention not reaching its goal of providing a sustainable solution in the city region in relation to the housing shortage. The intervention did not fulfill its full potential. Here it is important to emphasize that these mechanisms are in no way the only relevant or influential mechanisms in this intervention, nor in similar interventions offering applicability to other contexts. The consideration of these mechanisms from the initiation of the process should also not to be considered as a panacea, as the introduced mechanisms portray themselves differently in different circumstances as well as support or hinder other emergent mechanisms.

## 5.1 Ethics

*“While representation is inevitable, an ethic of responsibility must accompany it”*

(Asher & Wainwright 2019, 36).

The embedded normative perception on the value of knowledge and ethnocentric practices have formed a structure supporting neocolonialism and creating an unsustainable foundation for international development (Frenkel & Shenhav 2006; Nkrumah 1967). When collaborating in an international context it is important to acknowledge these predispositions and take into consideration the value of local knowledge and the role of local socio-cultural norms when fostering sustainable

cooperation. It is widely acknowledged that even in academia most theories and frameworks for battling today's issues are based on Western subjectivities (Mir & Mir 2012). We often rely on Eurocentric sense making in defining universal models, whether it be forming moral standards or political ideologies on state building. Postcolonial theory as a body of knowledge sheds light on the presumed hegemony of knowledge criticising the way in which Western knowledge defines the mainstream 'truth' on how to view the world, thus advancing the Western world view (Iwowo 2014). Intrinsically this also determines non-western theories and procedures as inferior and inherently inapplicable to Western societies (Frenkel & Shenhaw 2006, 17). This study has drawn ethical considerations through out the process from the scholarly discussions on post-colonialism, post-development and issues of representation (see e.g. Asher & Wainwright 2019). While this study focuses less on contributing to the scholarly discussion on development, the varied perspectives have also guided the exploration of co-creation as the holistic approach it is introduced as in relation to development.

It can be argued that sustainable development presents a form of development which is to be considered as a shared responsibility and thus as relevant to all peoples. However, this does not mean that sustainable development activities should not be considered with the same sensitivity and critical outlook as any other form of development. Alike development, co-creation and sustainability are both rooted primarily in knowledge constructed with 'Western', 'First World' or 'Global North' subjectivities. A critical perspective to the sustainable development discussion should be considered extremely relevant considering the post-development discussion in academia. The main source of this criticism has been the aspects of development that are contingent on the modernity of 'developed' countries which allows for the use of development as a tool for reconstructing the 'Third World' reality and identity as a form of control. The sustainability discussion fostered by the UN distributes responsibility for sustainable development activities to actors outside governmental institutions. However, it does not mean that the criticized positioning of actors existing in less developed circumstances as subaltern would vanish. Rather the driving motivations and forms of control may become more intertwined and manifold giving external actors a justification for rooting their knowledge in a variety of local circumstances. Here it is to be stressed that the definition of sustainability is not universal. The considerably radical critical discussion on development calls for embeddedness, meaning that development becomes more autonomous and democratic through the ownership of the relevant stakeholders such as the poor (Escobar 1995, 615; Sachs 1992, 1).

This study takes part in the nascent scholarly discussion on co-creation as an approach which holds much potential in addressing some of the criticism towards development and sustainability. The choice of exploring the topic was rooted in ethical responsibility. The co-creation approach has chiefly been coined in the 'West' and in addition the field of business. Capitalism and the neo-liberal market have received a fair share of the criticism in relation to development and representation as

presented through out this study. This study acknowledges that the approach also criticized for its idealistic nature may in fact be used by a variety of actors in a symbolic way holding similar inherent value as highlighting sustainability in ones' activities (Voorberg et al. 2014, 1349). It is important to learn about how it is implemented and experienced in different contexts in order to avoid its use to harness resources for the benefit of one, rooting external ideologies to local circumstances or as unintentionally resulting in co-destruction. Based on this study there are limitations to the equality of stakeholders in a co-creation process which are ever more apparent in an international setting. In practice it is likely that it is necessary for a certain stakeholder or group of stakeholders to initiate and facilitate the process. Thus, the approach does not free international development from its innate pitfalls.

While all academic works are expected to include critical perspectives to the studied topics, there are further ethical considerations to be made when emphasizing a critical approach in a study. Within the much debated development context, these ethical considerations were most apparent when choosing to gather empirical evidence on the topic. The choice to emphasize anonymity for the case intervention in this study was made first and foremost by the researcher. Naming the case intervention and providing a more indepth description of the actors involved was considered in relation to its contribution to the research questions the study has aimed to answer. As the study focuses on solely the co-creation activities implemented in the case project as an intervention, the case acts rather as the context of the empiria. Thus, it was not considered as important for the aim of the study to provide additional information on the case project itself. The choice was made to minimize repercussions that uncovering certain aspects of their activities could have had on the involved actors, as there are a variety of groups involved whose stakes could not be evaluated by the researcher. The study has endeavoured to follow co-creation thinking in aiming to balance the risk and benefit between all involved stakeholders. The main emphasis has been on providing valid and reliable scientific insight to co-creation for the use of the scientific community engaged in developing the co-creation approach. In addition, the methodology has been seen as supporting a contribution to practitioners as well, providing useful insight to co-creation when planning similar interventions in the future. A guiding ethical consideration has thus been to aim to create benefit for different stakeholder groups, and especially to not destruct benefit for either stakeholder.

It is a challenge for a researcher to apply critique to their own critical explorations (Asher & Wainwright 2019, 36). In 1917 Max Weber noted in *Science as a Vocation* that "-- whenever the man of science puts forward his own value judgment, full understanding of the facts ceases." Critical realism's epistemological foundation lightens the burden of representation in that it does not consider a full understanding of reality to be feasible and fully acknowledges the probable bias of an individual stemming from their subjective experience of reality. However, the critical realist take on this study also fostered a continuous thought process on how the presented understanding of co-creation has

been shaped by the researcher, an individual whose knowledge base has in every way been formed by 'Western' knowledge. Through out the study, from selecting academic literature to choosing interviewees, a consideration has been placed on balancing perspectives that would have been forged in different contexts. The challenge this posed has been enlightening on the limited diversity in academic journals specifically on the studied topic. While it is difficult to draw conclusions on an author's background or gender, the references of this study were chosen to include also first names to portray the diverse representation of cited scholars or lack of it (Dion, Sumner & Mitchell 2018). The study did not limit its sources to specific fields of study nor did it make judgements about sources based on the number of their citations, rather considering the integrity of the publications and journals themselves. All of this may be considered as an aim to instill co-creative thinking to a rather independently conducted research process. However, the relevance of knowledge presented is unequivocally founded on the biased value judgement put forth by the individual researcher. This acknowledgement in itself is the ethical responsibility of a researcher.

## 5.2 Contributions

This study contributes to the growing literature on co-creation and takes part in the novel scholarly discussion on co-creation in relation to sustainability and development. As co-creation can be rather considered as an approach or a concept than a theory, the discussion is moving further towards offering insight relevant to its implementation in practice. This study offers a deeper understanding of the mechanisms of co-creation while bringing to light its ambiguous and contextual nature. The applicability of the findings to guide co-creation processes in other circumstances are limited. However, the study provides a novel outlook on and deeper understanding of co-creation and what should be considered when framing programmes and projects employing the approach in the future. As the study is theoretical in nature, it takes part in the scholarly discussion on co-creation in defining the concept in the given context. This supports further theoretical development of the co-creation approach, which is seen as necessary to fulfil its yet unrealized potential.

## 5.3 Limitations

This chapter challenges one to think about *what would be done differently if this research would be conducted again?* In the early phases of the research it was understood that while there is much literature on co-creation, it is somewhat scattered entailing many different fields and interpretations (Galvagno & Dalli 2014). This posed a challenge of going through a large number of studies in order to construct a conceptual framework which would support this study in answering its research

questions. As co-creation is not in itself even a theoretical framework, the use of realist evaluation to endeavor to theorize an intervention employing co-creation was seen to provide rigour to the exploration of its context specific characteristics: *mechanisms*. However, the conceptualization was reliant on the researcher's interpretation. During the research process the conceptualization of co-creation was developed through out the study, as the understanding of both the approach and the context was continuously deepening. The study first started with a focus on *value co-creation*, as this conceptualization has received the most attention in scholarly work thus far. It was challenging to find relevant literature on co-creation which had embarked from the original works in the field of marketing science, to exploring the concept in different contexts. The conceptual underpinning of the study required much of the resources of the research process. It became apparent that the research should allow further focus on taking part in the scholarly discussion on the development of co-creation into a theoretical approach or to provide insight to the framing of typologies for co-creation in relation to contexts outside of the initial bilateral company-customer setting.

In critical realism it is clear that a single research method can not disclose all that is relevant to know about a certain topic (Bhaskar 1975). Providing an empirical exemplary, the case intervention, was seen as a way of providing more robustness to the exploration. This study abstained from aiming to offer generally applicable hypothesis as it does not provide a comprehensive account of co-creation for sustainable development, rather the study joins the few scholars that have initiated the discussion in exploring the potential of co-creation in relation to sustainable development (Arnold 2017; Kruger 2018). Choosing a single case for the context of empiria presented limitations to the study which were not expected. More interviews were initially planned to be conducted on the intervention. The strategy was to employ a snow-ball effect to reach more interviewees that had taken part in the co-creation process in different roles. However, there were challenges in reaching interviewees or to engage them in contributing to the study through interviews. This may be seen to relate to the limited number of participants as well as their dispersed locations. Additionally, the fact that the project had already ended during the collection of interviews, the lines of contact were less clear as the participants had already moved on to engaging in other interventions. The sample of interview data was thus framed based on acquiring the necessary perspectives to the intervention, while considering the limited number of possible interviewees. The most important consideration was to keep a balance between different perspectives in the data, as is also emphasized in realist evaluation methodology (Pawson 1996). The study being rather theoretical in nature, the empirical data gathered is viewed as sufficient and providing the necessary insights on co-creation in a development setting.



## 5.4 Future Research

The development of a more robust theoretical understanding of co-creation in diverse contexts is still underway. Considering the apparent potential of employing co-creation for sustainable development, further research is called for in providing frameworks and typologies of co-creation which could be more applicable in providing insight to the practitioners employing the approach. There is a need for further studies addressing the relationship between intended and emergent mechanisms of co-creation in order to better understand how interventions could better foresee the contextuality of the responses of stakeholders to the resources introduced by an intervention. In a sustainable development context and an international setting it is apparent, that the processual understanding of co-creation is necessary as it may be assumed that co-creation is in fact initiated and facilitated by a specific group of stakeholders. This to some extent rebuttles the argument present in theoretical discussion on co-creation where each stakeholder is to be considered as an equal participant. It is further supported by the empirical findings of this study that this is difficult to realise in practice. This is founded in the added complexity of the process when involving such a diverse group of actors. Thus, more research on exploring the mechanisms of co-creation and co-creation as a process is called for to utilise co-creation in its full potential in the development of a more sustainable common future. A multi-stakeholder typology of co-creation could provide useful insight for practitioners in planning and facilitating co-creation processes.

As there seems to be a common consensus that engaging in co-creation is beneficial in most activities affecting different stakeholders, the ways in which co-creation is employed has not called for much justification. This has resulted in a lack of literature critically evaluating its implementation and outcomes in practice (Voorberg et al. 2014, 1347). The reasons leading to co-destruction have been explored by some scholars (Järvi et al. 2018). Thus far co-destruction has been seen in companies' value co-creation activities as misusing resources or acting otherwise inappropriately or unexpectedly (Plé & Cáceres 2010). It has been found as emergent in interaction between stakeholders and has thus far been studied both focusing on the interaction between service providers and customers (Echeverri & Skålen, 2011) as well as in interorganizational interaction (Makkonen & Olkkonen 2017). However, even some forms of social innovation processes have been found to be harmful in certain social contexts, for example exacerbating inequality (UNCTAD 2017). The co-destruction phenomenon has not been explored especially in relation to multi-stakeholder co-creation in new social contexts. Neither have the mechanisms leading to co-destruction been addressed in relation to sustainability or co-creation in relation to development activities.

To synthesize, this study identifies a need for further research in developing a more coherent understanding of multi-stakeholder co-creation. Especially in relation to sustainability and uncovering the potential of the co-creation approach in fostering development, as *positive change driven by*

*relevant stakeholders*. Critical studies exploring co-destruction in this setting would offer valuable insight to the challenges in employing the co-creation approach. Further scholarly discussion is needed on the topic to provide theoretical rigour to the approach. This would support practitioners in utilizing the approach to its fullest potential and avoid diminishing co-creation to a solely symbolic concept.

## REFERENCES

### 1. Articles and Books

- Alcoff, Linda (1991). The problem of speaking for others. *Cultural Critique*, Vol. 20, 5–32.
- Arnold, Marlen (2017). Fostering sustainability by linking co-creation and relationship management concepts. *Journal of Cleaner Production*. Vol. 140, 179–188.
- Asher, Kiran & Joel Wainwright (2019). After Post-Development: On Capitalism, Difference, and Representation. *Antipode*, Vol. 51, Iss. 1, 25–44.
- Baumgartner, Rupert J. (2011). Critical perspectives of sustainable development research and practice. *Journal of Cleaner Production*, 19, 783–786.
- Bhabha, Homi (1984). Of Mimicry and Man: The Ambivalence of Colonial Discourse Vol. 28, Discipleship: A Special Issue on Psychoanalysis, 125–133. The MIT Press.
- Bhaskar, Roy (1975). A realist theory of science. Leeds: Leeds Books.
- Birdsall, Nancy & Francis Fukuyama (2011). The Post-Washington Consensus: Development After the Crisis. *Foreign Affairs*, Vol. 90, Iss. 2, 45–53.
- Bowen, Glenn A. (2009). Document Analysis as a Qualitative Research Method. *Qualitative Research Journal*, Vol. 9, No. 2, 27–40.
- Cabezas, Heriberto & Urmila Diwekar (ed.) (2012). Sustainability: Multi-Disciplinary Perspectives. Bentham Science Publishers.
- Canato, Anna & Davide Ravasi, Nelson Phillips (2013). Coerced Practice Implementation in Cases of Low Cultural Fit: Cultural Change and Practice Adaptation During the Implementation of Six Sigma at 3M. *Academy of Management Journal*, Vol. 56, No. 6, 1724–1753.
- Chambers, Robert, (1997). Responsible Well-being: A Personal Agenda for Development. *World Development*, Vol. 25 Iss. 11, 1743–1754.
- Christensen, Clayton M. (1997). The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail. Boston, MA: Harvard Business School Press.
- Coe, Amanda & Gilles Paquet, Jeffrey Roy (2000). E-governance and smart communities: a social learning challenge. Working Paper 53, Faculty of Administration, University of Ottawa, October.
- Danemark, Berth & Matts Ekström, Liselotte Jakobsen & Jan Ch. Karlsson (2002): Explaining Society. Critical realism in the social sciences. Routledge: London.
- Dembek, Krzysztof & Jodi York, Prakash J. Singh (2018). Creating value for multiple stakeholders: Sustainable business models at the Base of the Pyramid. *Journal of Cleaner Production*, Vol. 196, 1600–1612.
- Deya, Bidit L. & Mujahid Mohiuddin Babub, Mizan Rahmanc, Manoj Doraa, Nishikant Mishra (2018). Technology upgrading through co-creation of value in developing societies: Analysis of the mobile telephone industry in Banglades. *Technological Forecasting & Social Change*, Vol 5.
- Dion, Michelle L. & Jane Lawrence Sumner & Sara McLaughlin Mitchell (2018). Gendered Citation Patterns across Political Science and Social Science Methodology Fields. *Political Analysis*, Vol. 26, Iss. 3, 312–327.
- Echeverri, Per & Per Skålen (2011). Co-creation and co-destruction: A practice-theory based study of interactive value formation. *Marketing Theory* 11(3) 351–373.
- Elkington, John (1998). Cannibals with Forks: the Triple Bottom Line of the 21st Century Business. New Society Publishers: USA.

- Escobar, Arturo (1995). *Encountering development: The making and unmaking of the third world*. Princeton (N.J.): Princeton University Press.
- Frenkel, Michal & Yehouda Shenhav (2016). *From Binarism back to Hybridity: A Postcolonial Reading of Management and Organization Studies*. Organization Studies Online First, SAGE Publications: London.
- Galvagno, Marco & Daniele Dalli (2014). Theory of value co-creation: a systematic literature review. *Managing Service Quality*, Vol. 24 Iss. 6, 643–683.
- Harris, Jonathan M. & Timothy A Wise, Kevin P. Gallagher, Neva R. Goodwin (Eds.) (2001). *A Survey of Sustainable Development: Social and Economic Dimensions*, Washington, D.C.: Island Press.
- Hauser, John & Gerard J. Tellis, Abbie Griffin (2006) Research on Innovation: A Review and Agenda for Marketing. *Marketing Science*, 25, 687–717.
- Hollands, Robert G. (2008). Will the real smart city please stand up? *City*, Vol. 12 Iss. 3, 303–320.
- Hume, David (1739-1740). *A Treatise of Human Nature*. Hume, D. & Selby-Bigge, L. A. (1978). *A treatise of human nature* (2. ed.). Oxford: Clarendon Press.
- Ind, Nicholas & Nick Coates (2013). The meanings of co-creation. *European Business Review*, Vol. 25 Iss. 1, 86–95.
- Iwowo, Vanessa (2014). Post-Colonial Theory, in the SAGE Encyclopedia of Action Research. Edited by David Coghlan & Mary Brydon-Miller. SAGE Publications: London.
- Jackson, Suzanne F. & Gillian Kolla (2012). A New Realistic Evaluation Analysis Method: Linked Coding of Context, Mechanism, and Outcome Relationships. *American Journal of Evaluation*, Vol. 33 Iss. 3, 339–349.
- Janus, Heiner & Stephan Klingebiel, Sebastian Paulo (2015). Beyond aid: A conceptual perspective on the transformation of development cooperation. *Journal of International Development*, Vol. 27, Iss. 2, 155–169.
- Järvi, Henna & Anni-Kaisa Kähkönen, Hannu Torvinen (2018). When value co-creation fails: Reasons that lead to value co-destruction. *Scandinavian Journal of Management*. Vol. 34, 63–77.
- Kazi, Mansoor (2003) *Realist evaluation in practice*. Health and Social Work. London, Sage Publications.
- Keeys, Lynn A. & Martina Huemann (2017). Project benefits co-creation: shaping sustainable development benefits. *International Journal of Project Management*, Vol. 35, 1196-1212.
- Koponen, Juhani (2005). *Oma suu ja pussin suu: Suomen kehitysyhteistyön suppea historia*. Helsinki: J.Koponen.
- Kork, Anna-Aurora (2016). Asiakasresponsiivisuudella tehokkuutta julkisiin palveluihin? Terveyskioski perusterveydenhuollon kehittämisinstrumenttina. *Acta Universitatis Tamperensis* 2237. Tampere: Tampere University Press.
- Kruger, Claudia & Rodrigo Goyannes Gusmão Caiado, Sergio Luiz Braga França, Osvaldo Luiz Gonçalves Quelhas (2018). A holistic model integrating value co-creation methodologies towards the sustainable development. *Journal of Cleaner Production*, Vol. 191, 400-416.
- Makkonen, Hannu & Rami Olkkonen (2017). Interactive value formation in interorganizational relationships: Dynamic interchange between value co-creation, no-creation, and co-destruction., *Marketing Theory*, Vol. 17 Iss. 4, 517–535.
- Martin, Eric C. & Isabella Nolte, Emma Vitola (2015). Communication, Cooperation, Coordination, Collaboration - The Four Cs: Interorganizational Partnering in Haiti. *Disasters*, Vol 40. Iss. 4, 621–643.
- Nkrumah, Kwame (1967). Neo-Colonialism: The Last Stage of Imperialism. *Science and Society*, Vol. 31 Iss. 1, 78-81

- Nähi, Tytti (2016). Cocreation at the Base of the Pyramid: Reviewing and Organizing the Diverse Conceptualizations. *Organization & Environment*, Vol. 29, Iss. 4, 416–437.
- Maher, Stephen & Scott M. Aquanno (2018). Conceptualizing Neoliberalism: Foundations for an Institutional Marxist Theory of Capitalism. *New Political Science*, Vol. 40, Iss. 1, 33-50.
- Malunga, Chiku (2014). Identifying and understanding African norms and values that support endogenous development in Africa, *Development in Practice*, Vol. 24 Iss. 5-6, 623-636.
- Mayangsaria, Lidia & Santi Novania (2015). Multi-stakeholder co-creation analysis in smart city management: an experience from Bandung, Indonesia *Procedia Manufacturing*, Vol. 4, 315 – 321.
- Mawdsley, Emma & Laura Savage, Sung-Mi Kim (2014). 'Post-aid world'? Paradigm shift in foreign aid and development cooperation at the 2011 Busan High Level Forum. *The Geographical Journal*, Vol. 180, Iss. 1, 27–38.
- Mawere, Munyaradzi (2017). Theorising Development in Africa: Towards Building an African Framework of Development. Langaa Research & Publishing CIG: Mankon, Bamenda.
- Mellahi, Kamel & Geoffrey Wood (2003). The Role and Potential of Stakeholders in "Hollow Participation": Conventional Stakeholder Theory and Institutional Alternatives. *Business and Society Review*, Vol. 108, Iss. 2, 183–202.
- Mohan, G., & Stokke, K. (2000). Participatory development and empowerment: The dangers of localism. *Third World Quarterly*, 21, 247-268.
- Mir, Raza & Ali Mir (2012) The colony writes back: Organization as an early champion of nonWestern organizational theory. *Organization* 20(1) 91–101.
- Dutt, Nilanjana & Olga Hawn, Elena Vidal, Aaron Chatterji, Anita McGahan, Will Mitchell (2016). How Open System Intermediaries Address Institutional Failures: The Case of Business Incubators in Emerging-Market Countries. *Academy of Management Journal*, Vol. 59, No. 3
- Nelson, Jane (2011). The Private Sector and Aid Effectiveness: Toward New Models of Engagement. In *Catalyzing Development: A New Vision for Aid*, 83-111. Eds. Homi Kharas, Koji Makino & Woojin Jung. Brookings Institution Press: Washington D.C.
- Ostrom, Elinor & Roger B. Parks, Gordon P. Whitaker, Stephen L. Percy (1978). The public service production process: A framework for analyzing police services. *Policy Studies Journal*, 7, 381–9.
- O'Hern, Matthew S. & Aric Rindfleisch (2010). Customer Co-Creation: A Typology and Research Agenda. In *Review of Marketing Research*, 6, Ed. Malhotra, Naresh K., Emerald Publishing Limited, 84–106.
- Payne, Adrian F. & Kaj Storbacka, Pennie Frow (2008). Managing the co-creation of value. *Journal of the Academy of Marketing Science*, Iss. 36, 83 – 96.
- Pawson, Ray (2006). Evidence-based policy: A realist perspective. London: SAGE.
- Pawson, Ray (1996). Theorizing the Interview. *The British Journal of Sociology*, Vol. 47, No, 295-314.
- Pawson, Ray & Nick Tilley (2001). Realistic Evaluation Bloodlines. *American Journal of Evaluation*, Vol. 22. Nro. 3., 317–324.
- Pawson, Ray & Nick Tilley. (1997). Realistic Evaluation. London: Sage.
- Parfitt, Trevor W. (2002). The End of Development? Modernity, Post-Modernity and Development. Pluto Press: London.
- Plé, Loïc & Rubén Chumpitaz Cáceres (2010). Not always co-creation: introducing interactional co-destruction of value in servicedominant logic. *Journal of Services Marketing*, Vol. 24 Iss. 6, 430–437.

- Prahalad, C. K. & Venkatram Ramaswamy (2000). Co-Opting Customer Competence. *Harvard Business Review*, 78, 79-90.
- Prahalad, C. K. & Venkatram Ramaswamy (2004a) The Future of Competition: Co-Creating Unique Value With Customers. Harvard Business Press.
- Prahalad, C. K. & Venkatram Ramaswamy (2004b). Co-creating unique value with customers. *Strategy and Leadership*, Vol. 32 Iss. 3, 4–9.
- Prahalad, C.K. & Venkatram Ramaswamy (2004c). Co-creation experiences: The next practice in value creation. *Journal of Interactive Marketing*, Vol. 18, Iss. 3, 2004, 5–14.
- Portney, Kent E. (2015). Sustainability. MIT Press.
- Quick, Kathryn S., & Martha S. Feldman (2011). Distinguishing Participation and Inclusion. *Journal of Planning Education and Research*, Vol. 31 Iss. 3, 272–290.
- Ramaswamy, Venkat (2011). It's about human experiences... and beyond, to co-creation. *Industrial Marketing Management* 40, 195–196.
- Ramaswamy, Venkat & Kerimcan Ozcan (2014). The Co-Creation Paradigm. Stanford University Press, Stanford, CA.
- Ramirez, Rafael (1999) Value Co-Production: Intellectual Origins and Implications for Practice and Research. *Strategic Management Journal*, Vol. 20, 49–65.
- Roser, Thorsten & Robert Defillippi, Alain Samson (2013). Managing your co-creation mix: Co-creation ventures in distinctive contexts. *European Business Review*, 25.
- Saarijärvi, Hannu (2011). Customer Value Co-Creation through Reverse Use of Customer Data. *Acta Electronica Universitatis Tamperensis* 1129.
- Saarijärvi, Hannu & P. K. Kannan, Hannu Kuusela (2013). Value co-creation: theoretical approaches and practical implications. *European Business Review*, Vol. 25 Iss. 1, 6-19
- Sarmah, Bijoylaxmi & Jamid Ul Islamb, Zillur Rahmanc (2015). Sustainability, social responsibility and value co-creation: A case study based approach. *Procedia - Social and Behavioral Sciences*, Vol. 189, 314–319.
- Sayer, Andrew (2000). Realism and social science. London: SAGE Publications.
- Shaw, Ian F. & Jennifer C. Greene, Melvin M. Mark (Eds.) (2006). The Sage Handbook of Evaluation. Sage.
- Shearn, Katie & Peter Allmark, Hilary Piercy, Julia Hirst (2017). Building Realist Program Theory for Large Complex and Messy Interventions. *International Journal of Qualitative Methods*.
- Soman, Dilip & Janice Gross Stein, Joseph Wong (2014). Innovating for the Global South: Towards an Inclusive Innovation Agenda. University of Toronto Press.
- Sørensen, Eva & Jacob Torfing (2018). Co-initiation of Collaborative Innovation in Urban Spaces. *Urban Affairs Review*, Vol. 54 Iss. 2, 388–418.
- Steurer, Reinhard & Markus E. Langer, Astrid Konrad, Andre Martinuzzi (2005). Corporations, Stakeholders and Sustainable Development I: A Theoretical Exploration of Business–Society Relations. *Journal of Business Ethics*, Vol. 61, Iss. 3, 263–281.
- Stokke, Olav (2009). The UN and Development: From Aid to Cooperation. Indiana University Press
- Thomke, Stefan & Eric von Hippel (2002). Customers as Innovators: A New Way to Create Value. *Harvard Business Review*, 80.
- Townsend, Anthony (2013). Smart Cities.
- Tuurnas, Sanna (2016). The Professional Side of Co-Production. *Acta Universitatis Tamperensis* 2163. Tampere: Tampere University Press.

Vallance, Suzanne & Harvey C. Perkins, Jennifer E. Dixon (2011). What is social sustainability? A clarification of concepts. *Geoforum*, Vol. 42, Iss. 3, 342–348.

Vargo, Stephen L. & Robert F. Lusch (2004). Evolving to a New Dominant Logic for Marketing. *Journal of Marketing*. Vol. 68, No. 1, 1–17.

Vargo, Stephen L. & Robert F. Lusch (2006). Service-dominant logic: what it is, what is not, what it might be, in Lusch, R.F. and Vargo, S.L. (Eds), *The Service-dominant Logic of Marketing: Dialog, Debate and Directions*, M.E. Sharpe, Armonk, NY, 43–56.

Vargo, Stephen L. & Lusch, Robert F. (2008). Service-dominant logic: continuing the evolution. *Journal of the Academy of Marketing Science* Vol. 36, Iss. 1, 1–10.

Virtanen, Rauli (2013). Kaivoja köyhille? Suomalaisen kehitysyhteistyön vuosikymmenet. WSOY.

Voorberg, William H. & Victor J. J. M. Bekkers, Lars G. Tummers (2014). A systematic review of co-creation and co-production: Embarking on the social innovation journey. *Public Management Review* Vol. 17, Iss. 9, 1333–1357.

Voukkali, Irene & Loizia Pantelitsa, Antonis A. Zorpas (2014). Definitions of Sustainability, in *Sustainability Behind Sustainability*, Ed. Zorpas, A. A. Hauppauge, New York: Nova Science Publishers, Inc.

Weber, Max (1917). Science as a Vocation. In *From Max Weber: Essays in Sociology*. Trans. and eds. H.H. Gerth & C.W. Mills. New York: Oxford University Press, 1946, 37-144; 150–156.

White, Mark A. (2013). Sustainability: I know it when I see it. *Ecological Economics*, Vol. 86, 213–217.

Sachs, Wolfgang (1992). *The Development Dictionary: A Guide to Knowledge as Power*. Macmillan Palgrave: New York.

Yang, Yefei & Han Han, Peter K. C. Lee (2017). An Exploratory Study of the Mechanism of Sustainable Value Creation in the Luxury Fashion Industry. *Sustainability*, Vol. 9, Iss. 4, 483–499.

## 2. Webpages

ILO, International Labour Organization (2018). Unemployment rate – ILO modelled estimates, Nov. 2018  
Retrieved from  
[https://www.ilo.org/ilostat/faces/oracle/webcenter/portalapp/pagehierarchy/Page3.jspx?MBI\\_ID=2&\\_afzLoop=1674007729025400&\\_afzWindowMode=0&\\_afzWindowId=55xvwg3ye\\_1#!%40%40%3F\\_afzWindowId%3D55xvwg3ye\\_1%26\\_afzLoop%3D1674007729025400%26MBI\\_ID%3D2%26\\_afzWindowMode%3D0%26\\_adf.ctrl-state%3D55xvwg3ye\\_57](https://www.ilo.org/ilostat/faces/oracle/webcenter/portalapp/pagehierarchy/Page3.jspx?MBI_ID=2&_afzLoop=1674007729025400&_afzWindowMode=0&_afzWindowId=55xvwg3ye_1#!%40%40%3F_afzWindowId%3D55xvwg3ye_1%26_afzLoop%3D1674007729025400%26MBI_ID%3D2%26_afzWindowMode%3D0%26_adf.ctrl-state%3D55xvwg3ye_57)

KEPA (2018). Viennin edistämistä vai kehitysyhteistyötä? Retrieved from  
[https://www.kepa.fi/sites/kepa.fi/tiedostot/julkaisut/vienninedistamista-vai-kehitysyhteistyota\\_0.pdf](https://www.kepa.fi/sites/kepa.fi/tiedostot/julkaisut/vienninedistamista-vai-kehitysyhteistyota_0.pdf)

FMFA, Finnish Ministry of Foreign Affairs (2019). Suomen ja Namibian väliset suhteet. Retrieved from  
<http://www.finland.org.na/public/default.aspx?nodeid=41071&contentlan=1&culture=fi-FI>

Republic of Namibia (2016). Harambee Prosperity Plan 2016/17 - 2019/20. Retrieved from  
<https://www.gov.na/.../bc958f46-8f06-4c48-9307-773f242c9338>

UN (2018). World Urbanization Prospects: The 2018 Revision. Retrieved from  
<https://population.un.org/wup/Publications/Files/WUP2018-KeyFacts.pdf>.

UN ECOSOC (2016). What is Development Cooperation? 2016 Development Cooperation Policy Briefs. Retrieved from [http://www.un.org/en/ecosoc/newfunc/pdf15/2016\\_dcf\\_policy\\_brief\\_no.1.pdf](http://www.un.org/en/ecosoc/newfunc/pdf15/2016_dcf_policy_brief_no.1.pdf).

UN (2018). Sustainable Development Goals. Retrieved from  
<https://www.un.org/sustainabledevelopment/globalpartnerships/>.

- UNCTAD (2017). New Innovation Approaches to Support the Implementation of the Sustainable Development Goals. Retrieved from [http://unctad.org/en/PublicationsLibrary/dtlstict2017d4\\_en.pdf](http://unctad.org/en/PublicationsLibrary/dtlstict2017d4_en.pdf).
- von Hippel, Eric (2005). Democratizing Innovation. The MIT Press Cambridge, Massachusetts. London, England. Retrieved from <http://web.mit.edu/evhippel/www/books/DI/DemoclInn.pdf>.
- WCED (1987). Our Common Future. Oxford University Press: New York. Retrieved from <http://www.un-documents.net/our-common-future.pdf>.
- WORLD BANK (2019a). World Development Indicators. Retrieved from <https://databank.worldbank.org/data/reports.aspx?source=2&series=SI.POV.GINI&country=>
- WORLD BANK (2019b). Urban population growth. Retrieved from <https://data.worldbank.org/indicator/sp.urb.grow>



## APPENDICES

### APPENDIX 1 – INTERVIEW THEMES AND QUESTIONS

#### BACKGROUND

1. What was your role in the project?
2. How did you come to join the project?
3. How would you describe co-creation?

#### THE GOALS OF CO-CREATION

1. How do you see the goals of the project?
2. What is the purpose for co-creation in this project?
3. What do you think were the main expectations?
4. Did they seem realistic?
5. How do you view the interaction? Was it frequent? Varied?

#### CO-CREATION IN PRACTICE

1. What type of co-creative activities have you participated in?
2. How was participation encouraged in this project?
3. Were all relevant stakeholders included?
4. Were there stakeholders which could not be reached or should have been reached?
5. What do you see that would support co-creation?

#### THE OUTCOMES OF CO-CREATION

1. What kinds of outcomes did the process have?
2. Can you identify outcomes that you did not expect?
3. Do you feel that you had influence on the outcomes?
4. Did you learn something about co-creation during the process?
5. Were new ways of working together developed during the process?

## APPENDIX 2 – CODES BY CATEGORY

CONTEXT - codes	MECHANISM - codes	OUTCOME - codes
<p>Exogenous initiatives, Political structures, Housing market, Urban Planning, Housing shortage, Stakeholder relations, Trade, Economic structures, Business activities, Gendered structures, Failing housing projects, Power relations, Social norms, Time consuming methods, Social networks, External ideologies, Large scale objectives, Local community, Homelessness, Poverty, Ethnicity, Middle-income level, National policy</p>	<p>Competition, Justification, Trust, Accountability, Communication, Transparency, Inclusion, Sparking interest, Access, Mutual learning, Explanation, Disseminating information, Influence, Support, Discord, Dependancy, Constrainment, Trust, Political Support, Communication, Building rapport, Intention, Purpose definition, Positive experience, Adaptability, Interaction, Contribution, Selection, Participation, Propagation, Dialogue, Uniqueness, Responsibility, Meaning, Exploration, Experimentation, Equal inclusion, Resignification, Framing, Idealism, Shifting objectives, Sustainability, Social integration, Balanced interaction, Learning, Equity, Sharing knowledge, Change, Direct contact, Socio-cultural learning, Context-sensitivity, Urgent need, Social positioning, Assuming consensus, Managing expectations, Information seeking, Gender, Social Status, Political support, Support, Framing, Targeting, Engagement, Alignment, Risk, Benefit, Value proposition, Trust building, Listening, Expectation, Empowerment, Value capture, Power, Reciprocity</p>	<p>Framing the co-creation process, Heightened motivation to participate, Distrust in reaching objectives, Limited adaptation to local context, Disengagement of contributing stakeholders, Sense of shared ownership, Reaching community members, Enabling wide dissemination of information, Development of shared vision, Inability to keep all stakeholders informed, Inequality between stakeholders, Assuming political consensus, Limited ability to foresee changing circumstance, Vulnerability in face of political will, Shifting focus from poor to middle income, Spillover to other activities, Empowerment of local stakeholders, Unclear communication about shifting objectives, Doubt about the benefit of participation, Fostering a culture of participatory decision-making, Responsibility of managing expectations, Need for continuous communication, Ensuring agency of each stakeholder, Enhancing sustainability in urban planning, Delivering on objectives, Doubt towards external initiatives, Hindering future engagement in similar interventions, Reformulating objectives,</p>